1	IN THE UNITED STATES DISTRICT COURT
2	FOR THE DISTRICT OF OREGON
3	
4	LEUPOLD & STEVENS, INC.,)
5	Plaintiff,) No. 3:16-cv-01570-HZ
6	vs.) January 11, 2019)
7	LIGHTFORCE USA, INC. doing) Portland, Oregon business as NIGHTFORCE OPTICS)
8	doing business as NIGHTFORCE) USA,)
9) Defendant.)
10	
11	
12	
13	
14	
15	CONTINUED MOTION HEARING
16	DAY 2
17	TRANSCRIPT OF PROCEEDINGS
18	BEFORE THE HONORABLE MARCO A. HERNANDEZ
19	UNITED STATES DISTRICT COURT JUDGE
20	
21	
22	
23	
24	
25	

1 APPEARANCES 2 FOR THE PLAINTIFF: Brian C. Park Stoel Rives LLP 3 600 University Street Suite 3600 4 Seattle, WA 98101 5 Nathan C. Brunette Elliott J. Williams Kassim M. Ferris 6 Stoel Rives LLP 7 760 S. W. Ninth Avenue Suite 3000 8 Portland, OR 97205 9 FOR THE DEFENDANT: David A. Casimir Mary Ann D. Brow 10 Jason R. Bond Casimir Jones S.C. 2275 Deming Way 11 Suite 310 12 Middleton, WI 53562 13 Scott E. Davis Todd M. Siegel 14 Klarquist Sparkman, LLP One World Trade Center 121 S. W. Salmon Street 15 Suite 1600 16 Portland, OR 97204 17 ALSO PRESENT: Mikael Crowther 18 COURT REPORTER: Nancy M. Walker, CSR, RMR, CRR United States District Courthouse 19 1000 S. W. Third Avenue, Room 301 Portland, OR 97204 20 (503) 326-8186 21 22 23 24 25

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

PROCEEDINGS

THE COURT: Good morning. Be seated.

THE CLERK: Your Honor, we're here today for a continuation of oral argument on the parties' cross-motions for summary judgment in the matter of Leupold & Stevens, Inc., versus Lightforce, Inc., Case No. 16-cv-1570.

Counsel, please state your appearances for the record.

MR. PARK: Good morning.

For the plaintiff, Brian Park. And we also have a client representative again, Mikael Crowther, in the gallery, who is the legal manager for Leupold & Stevens.

MR. BRUNETTE: Nathan Brunette.

MR. WILLIAMS: Billy Williams.

MR. DAVIS: And Scott Davis for defendant.

MR. CASIMIR: David Casimir for defendant.

THE COURT: There's a whole bunch of other people back there.

MR. SIEGEL: I'm Todd Siegel from Klarquist for defendant.

MR. BOND: Jason Bond for the defendant.

MS. BROW: Mary Ann Brow for defendant.

MR. FERRIS: Kassim Ferris for plaintiff.

THE COURT: Well, welcome to all of you.

Let me just get my computer going. This is the

realtime. In case I miss something that you said, I can look over at my screen and see what it is I missed.

(The Court and the court reporter confer off the record.)

THE COURT: We're going to be talking actuators today, ridges, and all kinds of things, cam followers, pins, bushings. All good.

(There is a brief pause in the proceedings.)

THE COURT: Let's see. There we go.

I don't know if you all discussed how you want to proceed. I'm okay with whatever agreement you reach between each other about how to proceed this morning and through the day.

Mr. Park?

MR. PARK: Yes, Your Honor.

At the last installment of the hearing, we conferred with the other side. We thought it would make sense to start with the same ping-ponging back and forth. We thought it would make sense to dive into the '907 patent today, with Mr. Brunette leading off, followed by the other side responding, and back and forth and so forth until that one is completed.

And then from there, we would move on to the five locking turret knob patents.

THE COURT: You think you're going to finish the '907

today?

MR. PARK: Yes. We certainly hope so.

THE COURT: So do I.

All right. That's acceptable to the defense?

MR. CASIMIR: It is.

THE COURT: All right.

Mr. Brunette, you're up.

MR. BRUNETTE: Your Honor, before I get started, I have a copy of our slides that I will give to opposing counsel.

Would the Court like a copy?

THE COURT: Sure. That's really helpful to me, when I get copies.

MR. BRUNETTE: (Handing).

Okay. Your Honor, starting with the '907 patent this morning, which I think has the most issues, to briefly overview the way I hope to tackle them, we would start with the issue of infringement and talk about pin and actuator, the two issues there. That is an issue on which only Leupold is moving for summary judgment.

Then I'll be turning to four issues on which there are cross-motions for summary judgment -- the date of invention issue, the entitlement to provisional priority issue, the certificate of correction issue, and equitable estoppel -- those all being defenses of Nightforce where the

parties are cross moving.

And then after that, there are two more Nightforce defenses where only Leupold is moving for summary judgment; and those are the Altenheiner patent defenses and the Schmidt & Bender device defenses.

THE COURT: Okay.

MR. BRUNETTE: So diving right in on infringement, there are only two issues here, as I said a moment ago. They turn on the proper understanding of the term "pin" and the proper understanding of the term "actuator."

Of course, the claim construction of those terms is a legal issue. And once that legal issue is resolved, that's the end of the discussion of infringement from our perspective. There simply is no factual dispute as to what the structure of the accused products is or how they work. It's only about what does the claim term mean; and, thus, is it in the undisputed facts or isn't it.

We presented the testimony of Leupold's expert,
Mr. Byron. I don't intend to talk extensively about that
today, since Leupold is the only one moving for summary
judgment. I plan to focus more on the testimony of
Nightforce's personnel and their expert to show why there is
no dispute here.

And, critically, Nightforce's expert,

Mr. Brandenburg, admits that the Nightforce products include a

pin. In fact, he used that term himself, voluntarily, to describe the accused structure in those products.

So turning to the first image here, this is from a set of Nightforce assembly instructions. And it shows how the accused products go together and, thus, what is inside of them. And we are talking in particular about item 6 in this figure, which I've called out with a red box. That is a pin.

It gets threaded into -- it's a little bit difficult to see, certainly from the glare that I have on this monitor, but if you follow the line, it threads into a hole in an arm that extends up through that hole in the scope. You can kind of see a light gray circle.

There are threads on the right side of that pin that engage into the hole in that follower arm. If you follow the follower arm down into the riflescope body, it is attached to a focus lens.

And then once that is screwed into place, part 7, which is a bushing, goes around the pin. And the pin then engages into the spiral cam track.

And I'll flip to the next picture here, where you can see the spiral cam track in the figure on the left -- it's labeled "inward face of focus helix" -- and part 7, which was that bushing with the pin inside of it, sticking out from the scope now that it's screwed into place.

So when you turn that focus helix around and stick it

over that hole in the scope to make the turret, the pin part and the bushing, together the cam follower, extend into that groove. And as you turn the knob, that causes the focus helix part to turn.

And, as you can see, the radius between the inside of the focus helix groove way down at the bottom is really small; and the radius between the hole and the groove way out at the left side, all the way around on the other side, is really considerably wider. And so that pushes the pin back and forth laterally, and that pushes the arm back and forth laterally, which pushes the lens back and forth laterally, adjusting the parallax focus of the scope.

Moving ahead to the testimony, this slide is testimony from the Rule 30(b)(6) deposition of Nightforce's designee, Klaus Johnson. He was asked, is there any difference between the various Nightforce products, and testified that, yes, there are differences, but the only differences that could possibly be relevant to infringement as to the '907 patent are as to the specific shape of that spiral cam, how many degrees around it goes, how much a degree of rotation changes the amount of lateral movement of the pin.

There's no other difference as to what the pin looks like or how the focus arm works or any of that. That's all the same across all of the accused products. There's been no argument from Nightforce that there's any difference between

the accused products. They all rise or fall together.

So then moving ahead, this next slide is Nightforce's expert on the '907 patent. They hold out Allen Brandenburg as their expert. And he's asked -- so the first question here, starting at line 17, we're referring to the same figure that I put up first, the picture of that pin and the bushing and how they go together in the scope.

And I asked, How do -- how are those two parts -- in other words, the pin and the bushing -- joined together?

He answers, "If that's a bushing and it's assembled over a pin, I can assume that it's a slide fit over the pin," recognizing on his own, without prompting, without the words being put into his mouth, that that part No. 6 is a pin.

And then just following up on that, to make sure we're all clear, "You would consider the elongated head to that screw a pin?"

At that point he realizes that he has just used the claim language to describe the accused product and tries to backpedal a little bit and says, "Well . . . do you mean a 'pin' as defined in the patent?"

And I say, You just used the word "pin." I was asking to make sure that's what you meant.

And he says, "I'll change it to a post."

Then we follow up: Do you understand there to be a difference between "pin" and "post"?

And he says, Well, I don't want to use the claim language. I want to use a different word, okay.

Ultimately he comes down to, is there a difference?

Well, "pin" might be a little bit narrower than

"post," because he thinks that pin needs to be metallic.

It is not at all clear where he's getting that from.

It is not the construction that the parties discussed and came to a tentative agreement on. It is certainly not the construction that is advocated in Mr. Byron's report, which is a solid, rigid protruding structure. I believe it's a short, solid, rigid protruding structure. I may have the order of those wrong. That's what we think that "pin" means.

And there's certainly nothing in the '907 patent that says that the pin needs to be metallic.

But, regardless, the claim construction almost isn't necessary to resolve to the extent that there's a difference between the experts, because everybody agrees, as

Mr. Brandenburg said when we started the conversation, before he was prompted and before he thought about the legal ramifications of what he was saying, part No. 6 is a pin. And the claim language for Claims 6 and 16 that this relates to simply requires that the cam follower includes a pin.

There is no question that the parts 6 and 7 together engage in the groove and are a cam follower. There is no question that that part includes a pin. And on that basis, we

think that summary judgment of infringement as to the pin issue is appropriate.

THE COURT: Is there -- at some point, are we going to have a conversation about what a "groove" is or is not?

MR. BRUNETTE: I'm not exactly certain when we would have a conversation about what "groove" is or is not, although I would say "cam track" is a term that the Court has construed.

THE COURT: Right.

MR. BRUNETTE: And it is --

THE COURT: Well, you just used the word "groove."

And I'm not -- and I see the word "groove" throughout your

paperwork in a couple of places, as I recall. And I was

curious about how you all were using that word. If you're

talking about the cam track and that's the groove --

MR. BRUNETTE: That's correct, Your Honor, yes.

We use "groove" as an embodiment of the cam track.

Now, the claim language for Claims 6 and 16 doesn't just add

to the base Claim 1 and 10 the requirement that the cam

follower includes a pin. It also requires that the cam track

includes a groove.

There has not been any dispute on that issue in the briefing. I don't -- as far as I understand it, Nightforce is not contesting that their products, the inward face of that focus helix, that the cam track cut into that is, in fact, a

groove; in other words, I would say a recessed area, recessed below the drive face --

THE COURT: Okay.

MR. BRUNETTE: -- which is also a term we construe.

THE COURT: And, again, maybe I'm just giving you all a heads up about something that I was just puzzled about; and that is there was some discussion in the briefing, as I recall, between whether or not a track is simply the inverse of something that's cut out or not or sits on top of it, and how all of that -- whether either one of those might be a groove or not and whether it makes any difference.

I don't know. I just remember kind of reading through all of that. And maybe that's a conversation that's going to happen later on when we talk about the cam track.

MR. BRUNETTE: Your Honor, yes.

I think the short answer is there will be a conversation about that. It is -- it is part of the conversation about priority entitlement with respect to the claims other than 6 and 16, which have to do with whether the provisional application discloses a ridge or rail embodiment to a person skilled in the art.

THE COURT: Okay.

MR. BRUNETTE: Because the provisional definitely has at least a groove, and we think that a person skilled in the art would understand the inverse of a groove as well. But

that's where that inverse of a groove comes in.

THE COURT: Thank you. All right.

MR. BRUNETTE: So moving to the second infringement issue --

THE COURT: All right.

MR. BRUNETTE: -- actuator. So this has to do with both Claim 1 and Claim 10 and, therefore, all asserted claims of the '907 patent.

The undisputed evidence shows that the structure of the accused products is what it is. Again, we can refer back to that testimony of Mr. Johnson. There is no difference between the different products.

Mr. Brandenburg admits that he's taken a very narrow interpretation of what "actuator" means; and, in fact, not just narrow, but limited to the specific Part 122 called out in the specification.

There is also no question that the Court has already heard this issue. We debated about the meaning of the term "actuator" back at the *Markman* hearing. And at that hearing Nightforce took the position that "actuator" was limited to the specific embodiments shown in the specification. We argued that it was not and that "actuator" should be given its full broad plain and ordinary meaning.

The Court agreed with Leupold on that issue and how that actuator is entitled to its plain and ordinary meaning

and is not limited to the specific embodiments shown in the specification. Now, Mr. Brandenburg disagrees with the Court on that, but that is not an expert opinion that could overcome summary judgment.

So going through some of the testimony on this -this is from Mr. Brandenburg's deposition transcript. We had
a conversation -- and it's cited in the briefing; I don't want
to put it all up because it's somewhat more lengthy -- before
this part that I'm quoting now, where we talked with him about
his understanding of the term "actuator," divorced from the
'907 patent, just the ordinary English word "actuator." And
he agreed that it has a plain and ordinary meaning and it's
relatively broad.

Then he says, Well, in the context of the '907 patent, I have a narrower understanding of "actuator." And he says it's based on Part 122 shown in the specification.

So I asked him, Is it your understanding that it's limited to Part 122?

He says, I wouldn't say it -- it narrows the general application, but it defines what it is in the patent.

And so I say, So that's -- you're taking the position that the cam -- that the actuator is limited to Part 122 shown in the specification, asking, "The understanding of the claim construction of actuator" --

THE COURT: You're going to need to slow down.

MR. BRUNETTE: I'm sorry.

"That's the understanding of the claim construction of actuator that you used in forming your non-infringement -- "Yes.

-- "conclusions?"

And then he clarifies: "I concluded that the part they called out as an actuator was what they meant as an actuator.

"Specifically Part 122?

"Yes."

So it's very clear that Mr. Brandenburg's point of non-infringement is based on his opinion that the proper construction of "actuator" is limited to Part 122 as called out in the specification.

Here is a brief excerpt from the Court's Markman order. There are three stars in the middle, so these were on different pages. At the top the Court is describing what Nightforce's argument was there, which is that "actuator" is limited to what's called out in the specification. At the bottom is the Court's conclusion rejecting that argument.

So "actuator" is entitled to its plain and ordinary meaning and is not limited to the specific embodiments discussed in the specification.

So let's look at what the claim language actually requires here, because Nightforce wants to argue -- at least

in their reply brief they come back and say, Well, look, we're not really making the argument that Mr. Brandenburg made, which is that "actuator" is limited to Part 122. What we really want to argue here is that the actuator has to be outside the housing of the scope and that the actuator has to be directly attached to slide along the housing of the scope.

That argument does not work with the claim language. So here's the language of Claim 1. I've highlighted the relevant part, which is the only part that talks about where the actuator is with respect to the housing or how it attaches to the housing. And all it says is "an actuator slidably mounted for movement along the longitudinal axis of the housing."

Nothing about that language requires the actuator to be outside the housing. Nothing about that language requires the actuator to be mounted to the housing, only that it is mounted to something in a manner that allows it to move along the axis of the housing.

There is no dispute that the actuator in the Nightforce product slidably moves along the housing. That is all that is required.

In any event, the actuator in fact does stick out from the housing, as we saw in the pictures we looked at a few moments ago, because the cam follower is defined in the claims as a part of the actuator; and the cam follower sticks out

through that hole in the scope to engage into the spiral cam helix. But the Court need not reach that issue because the claim language doesn't require it in any event.

THE COURT: I lost you as to what you are defining as the actuator itself. Is it the pin?

MR. BRUNETTE: So the actuator, as defined in the patent is -- includes -- the cam follower is a part of the actuator.

THE COURT: Okay.

MR. BRUNETTE: So we think the actuator includes at least that pin and probably also some part of that arm that it attaches into.

It is not critical how much of that is or isn't an actuator. It doesn't really matter. The pin slides back and forth. And whether the arm is a mounting structure or is part of the actuator we don't see as relevant.

THE COURT: Okay.

MR. BRUNETTE: With that, we think we're done on infringement.

THE COURT: All right.

MR. BRUNETTE: Those are the only two issues. I'm happy to come back to it if there are questions after Nightforce's presentation. We'll move on to the defenses.

Oh, just to flag for the Court -- I'm sorry. I missed this slide. Any dispute about the scope of the meaning

of the term "actuator" or of the term "pin" is a legal dispute that does not preclude summary judgment. Here are two cases where there were disputes about claim construction that the Court properly resolved on summary judgment and then entered summary judgment based on the proper claim construction.

THE COURT: All right.

MR. BRUNETTE: Our next question is date of the invention. So this is one of the four Nightforce defenses on which the parties cross-moved for summary judgment.

Our position is that Mr. Otteman invented his spiral cam focus mechanism before March 1998. The reason everybody keeps talking about March 1998 is that that is the date of a claimed prior art reference. It's the German utility model that everybody keeps talking about with the number that starts with the letters "DE."

And the critical dispute about that reference is whether it is prior art or whether it is not prior art. And that turns both on priority entitlement back to the provisional and the date of the invention, but I want to separate them and talk about them separately because it's possible that one of them might be -- that the Court may ultimately decide to enter summary judgment on one and not the other or may view them differently, so we'll talk about them separately.

We believe that there is ample evidence demonstrating

that Mr. Otteman invented the claimed spiral cam focus mechanism much earlier than 1998. In fact, there is clear documentary evidence showing that he did so in 1995. So there's certainly no room for dispute that it was well before 1998.

So starting with the law on entitlement to an invention date, there is a rule of reason standard and a corroboration requirement, and corroboration is judged under that rule of reason standard.

So under the rule of reason, although some corroboration of inventor testimony is required, if inventor testimony is used to prove the date of invention, there is no requirement to ignore all of the inventor's testimony. The inventor's testimony can still be used. Nightforce's brief suggests we just throw out all of the inventor's testimony and look at what else there is. That is not the standard.

It is -- the ultimate question is whether the inventor's testimony, plus whatever corroboration there is, is sufficient that a reasonable juror could find that there has been invention before the date of the prior art reference.

Second, there is no requirement to corroborate every step or every claim element. So we don't have to show every single thing that Mr. Otteman did in coming up with the invention and reducing it to practice through corroboration. There just needs to be enough corroboration overall that the

story is believable.

We consider the totality of the evidence, not individual documents. So the fact that an individual document does not tell the whole story does not mean that it is not corroborating.

And circumstantial evidence is sufficient. We don't need to have an independent over-the-shoulder observer watching the expert. We can look at circumstantial evidence.

And here are three cases, all of which talk about how this works. In Fleming, for example, corroboration of reduction to practice was found based on circumstantial evidence, even though the Federal Circuit expressly recognized that none of the corroborating evidence definitively proved the inventor's account and none of it disclosed each claim limitation. So some claim limitations were not in the corroboration, but corroboration was still found and there was sufficient evidence.

Similarly, in *Cooper* corroboration was found based on circumstantial evidence, even though not every claim element was shown in the corroborating evidence.

And in Loral corroboration was found on circumstantial evidence, even though there was no direct proof that any prototype had been made. There was only circumstantial evidence of a mask, which is a form of tooling, which would have been consistent with having made the

prototype, but did not prove that that mask was every actually used to make a prototype, plus the mere contemporaneous documents shortly after the fact that claimed, in marketing to third parties, the ability to practice the invention.

So what we can draw from these cases is there is a corroboration requirement, but it does not require direct proof of every element of the claims. And the *Mahurkar* case that we cited in our briefing talks extensively about how the burden shifts back and forth between the parties.

So it is clear that Nightforce is the party asserting invalidity. Nightforce always has the burden to prove invalidity by clear and convincing evidence.

Leupold, as the party asserting invention prior to its patent filing date, has the burden of production to come forward with sufficient evidence that a rational juror could find that the invention took place before March 1998. As soon as we cross the threshold that a rational juror could find in favor of Leupold on this question, the burden shifts back to Nightforce to persuade the trier of fact that it did not happen. And the applicable burden there is the clear and convincing evidence standard to prove invalidity.

So the question we're asking today is twofold, because there are cross-motions for summary judgment: Is there at least enough evidence that a rational juror could find, drawing all inferences in Leupold's favor, that

Mr. Otteman invented before March 1998? And we think the answer to that is definitively yes.

And then the second question for Leupold's motion:

Drawing the inferences in Nightforce's favor, would a rational juror still have to find that the invention was invented before 1998? In other words, that Nightforce does not disprove corroboration of the invention before 1998, under the clear and convincing evidence standard.

So flipping forward to the testimony, to take a look at what evidence there is to meet this standard, Mr. Otteman testified that he created electronic drawings of the invention the summer of 1995. He testified that he sent those electronic drawings to a third-party company called Ideality and specifically to Ric Landvatter, who worked at Ideality at the time, for production of the prototype spiral cam parts. The critical -- the part with the helix in it and the follower were plastic parts in the prototype and in Leupold's embodiment that were made for the prototype by Ideality.

And Mr. Otteman testified that he got those parts back from Mr. Landvatter and assembled them into a complete prototype scope and confirmed that the focus mechanism actually operated. He said all of that, and the citations here are to his deposition transcript.

It was a bit of an issue. So before his deposition, his testimony was reduced to a declaration, and that

declaration was provided to Nightforce so they would understand what he was going to say and there would not be any claim of surprise about what his testimony was. And he relied on that declaration during his testimony, because there were a number of exhibits attached to it. So he would refer to the exhibits that were all put together with his declaration. But he testified to this live and under oath at his deposition, and that's what we're citing to on this slide.

There are also citations to his affidavit testimony, which are proper on summary judgment. But it is all confirmed in the deposition transcript itself.

And it's clear from his testimony that all of this took place in 1995. And then he hedges a little bit and says, "I don't fully remember. I'm looking at the documents, and the documents seem to say it's summer of 1995. But at the latest, it would have been early 1996."

This all happened pretty quickly after he finished up the electronic drawings. There is no question that this happened long, long before March of 1998.

That's the inventor testimony. And that inventor testimony, absent the corroboration requirement, right there should be sufficient to overcome summary judgment.

So the question is: Is there at least enough circumstantial evidence to corroborate that inventor testimony, put together with the inventor testimony, to make

the story believable to a rational juror, drawing all inferences in Leupold's favor for our motion and in Nightforce's favor -- or in Leupold's favor for their motion, in Nightforce's motion for our motion?

So the first things are specific dated CAD drawings that corroborate Mr. Otteman's testimony. We have the very CAD drawings that he created in July of 1995. We know we have the right CAD drawings because they were preserved on a backup CD that was was created on June 27, 1996, critically, almost two years before March 1998.

And Nightforce argues, well, those drawings show conception, but not reduction to practice. But, in fact, at least as circumstantial evidence, the drawings are much more important than just that. They corroborate Mr. Otteman's testimony about when he created the drawings, but he also said he took these drawings and sent them to Ideality.

So the fact these drawings exist and are dated to 1995 and that they were backed up in 1996 and had, at that time, a last change date in July of 1995 -- so almost a year later the files are unchanged -- is certainly circumstantial evidence to show that this all happened immediately after the drawings were created, just as Mr. Otteman testified.

So these drawings sat on the computer for a year, then were backed up in 1996. Certainly at some time in there, consistent with Mr. Otteman's testimony, they were sent to

Mr. Landvatter.

And so here is a picture that was produced in the case and is in the summary judgment record of the backup CD, but we actually also produced all the files off the backup CD.

And here is a picture of the data off of the backup CD showing -- these are not all of the files. There are more relevant files on there, but here is an example of two of them, spiral cam 1.1 and spiral cam 1A.1, both dated from July 26, 1995, their last change date.

And there's a bit of a question about the endings on those files, because the original files would have had extensions for the CAD system in between the first dot and the dot 1. The dot 1 is the version history. It appears that that was cut out in the process of creating the backup CD in 1996, because a faxed copy of the data drawn from the system that Mr. Otteman sent around in 1998, which is in the record, has those extensions, but the backup CD created in 1996 does not.

Nightforce at one point took the position, well, we don't know for sure that these files, without the extensions, are real or date to before 1998. But there's no question about that, because these files, without the extension, were created -- or were archived in 1996. So we know the CD was created and burned at that time.

In addition to having these drawing files that we can

definitively date to 1996 -- and I would add, there is also an independent corroborating witness, Mr. Hammond, who is a custodian of record at Leupold, who backs up that this disc is a disc created in 1996 and maintained in the course of Leupold's business. Although he is a Leupold employee, for purposes of corroboration Leupold employees count as being separate and independent because they are not the inventor himself.

So, in addition, we have a true third party,

Mr. Landvatter, the gentleman from Ideality who actually

produced the spiral cam parts. We took his deposition. He's

a third party with no financial interest in the case. He

built the prototypes. And he confirms Mr. Otteman's testimony

about what was done and the dates that it was done.

He also confirms that a series of contemporaneous or near-contemporaneous financial records from Leupold showing the financial transactions associated with making that prototype would have related to that prototype. So he authenticates those documents as well, which is further corroboration.

Just scanning through a few examples of his testimony, here he takes a look through a variety of the documents associated with Mr. Otteman's testimony and recalls that he would have built the parts, driven them to Leupold's offices to deliver them to Mr. Otteman. And although he

didn't understand all of the inner workings of the scope that they were going into, he knew they were going into a riflescope and that they were going to be used to adjust the focus of the -- adjust a lens; in other words, adjust focus. So he confirms the point of the invention and what this relates to, the parts that he was making at this time.

There's also clear testimony that this happened in 1995 or early 1996. I would direct the Court in particular to the last two lines that are up on this slide, slide 26. He's shown Mr. Otteman's declaration. He reads through the description of when the reduction to practice happens, and he says, "It's -- I could agree with everything he has said here."

That is the essence of corroboration. That testimony from a third party is sufficient that a rational jury, certainly drawing all inferences in Leupold's favor, could find that Mr. Otteman's testimony is credible and corroborated.

In addition, he's asked about the financial records. And I have two slides of this, because he goes through different packets of invoices. They're actually purged records of invoices, so -- the original invoices no longer exist because they're so old. But when they were -- when those records were removed from the company, records were kept of what the basic data of the invoice was. And these paper

records were found in paper archives of Leupold's. There's a declaration attesting to what these are and where they came from from Mr. Dugan, the CFO of Leupold.

And, in addition, Mr. Landvatter testifies -- this one isn't on a slide, but it's in his transcript at 30 -- that he recalled that the spiral cam was one of the earliest projects that he did for Leupold.

So he looks back through these invoices and ultimately concludes -- "Do you think all of these would have been related to the spiral cam project?

"Yeah.

"Okay.

"Yes."

He's quite clear that he thinks these would have been related to the spiral cam project and these are transactions from 1995, and he's also quite clear that the spiral cam project was one of the very earliest projects that he did for Leupold, which also undermines Nightforce's argument that all of this really took place in late 1998 or early 1999.

Nightforce's fallback argument is even if you believe that all of this happened, they say, "Well, there's no evidence that Mr. Otteman actually tested the scope to see if it worked, because we haven't seen any test report. Where is the corroboration? Where is the documentation that testing actually occurred?"

And there are two arguments here. There's a legal argument and a factual argument. The legal side of the argument is, under the Slip Track Systems case from the Federal Circuit in 2002, testing is not required for an invention that's mechanical and that is sufficiently simple that a person of skill in the art, when they build the prototype, would automatically, in the course of building the prototype, already know that the invention works.

The invention in *Slip Track Systems* is a drywall bracket that hangs drywall that has some give in it. And it is designed for use in places where there are earthquakes, so that when there is a minor earthquake, the drywall can slide back and forth slightly in the hanger track and does not crack.

And in that case there was no evidence of testing, but the Federal Circuit said, well, it wasn't necessary to test the bracket because by the time you built the prototype bracket and stuck it on a piece of drywall, you would already know, without any formal testing needed, that there was play between the bracket and drywall, or even just by measuring the bracket. You wouldn't have to put it on drywall. You would know the thickness of the piece of drywall and therefore know that there would be play and therefore know that the invention would work to have play. You don't have to test it in an actual earthquake or a simulated earthquake to know that the

plaster won't crack. The point of the invention is just that it is a bracket that allows play to reduce the chance of cracking.

The same is true here. By the time Mr. Otteman put together the parts that we -- his equivalent of the parts that we saw, a cam hub with a groove in a spiral and a pin sticking up into that groove, there's no question that he would have known that it would work to move the focus lens. And Mr. Byron says that in his rebuttal report.

But the Court need not resolve that argument, in any event, because there is evidence that it was -- that there was testing to confirm that the prototype scope worked.

Mr. Otteman said that.

And, in addition, Mr. Landvatter confirms that Mr. Otteman contemporaneously told him that the spiral cam prototype worked for its intended purpose. There are three cites to Mr. Landvatter's transcript here, at 49, 69, and 76, where he says that.

And this lines up exactly with the *Cooper* case that I cited earlier. The same thing happens there. There is no direct evidence that the inventor tested his invention at the time of the prototype, but what there was was evidence from someone who was working with him at the time, who said, "Well, the inventor told me contemporaneously that he had tested it and that the fiber length was of the right length." That's

consistent with Mr. Landvatter's testimony here.

Now, in a footnote of its response brief, Nightforce argues, well, this testimony from Mr. Landvatter is nice, but that's hearsay and the Court shouldn't consider it. We responded to that in our evidentiary surreply.

But just briefly, to follow up on that, this is exactly the same as the evidence that was allowed in *Cooper*. And it qualifies for a hearsay exception both because -- so Mr. Otteman's -- or Mr. Landvatter's testimony about what he heard is proper testimony because he was speaking at a deposition. And Mr. Otteman's statement that he's testifying to was a present sense impression, explaining that his product worked and, in any event, is admissible as a prior consistent statement, because by challenging Mr. Otteman's invention story and demanding corroboration, Nightforce is calling into question the veracity of Mr. Otteman's claims that he tested the scope; and, therefore, we're allowed to use a prior consistent statement. So under either of those exceptions, this testimony comes in.

The other evidentiary issue on this question of inventorship is a sham affidavit objection. So while we're on evidentiary questions, I'll address that briefly. Again, our response to this issue is spelled out in our evidentiary surreply.

Nightforce asserts that the supplemental declaration

of Mr. Byron and the declaration of Mr. Otteman are sham affidavits. This is particularly problematic as to Mr. Otteman's declaration because his declaration precedes the testimony that Nightforce says makes it a sham.

And there is at least one District of Oregon case, the *Too Marker Products* case from Judge Papak in 2010, that says that can't happen. If the testimony happens first and then the allegedly inconsistent testimony happens later, then the first testimony can't have been a sham.

But, in any event, Nightforce is not moving against Mr. Otteman's deposition transcript. And he says all the same things on direct at his deposition that he said in his declaration, so the point is moot in any event. He authenticated all the documents and provided all the same testimony on the record.

As to Mr. Byron's declaration, this falls far short of the sham affidavit doctrine. As detailed in our briefing on the evidentiary surreply, the sham affidavit doctrine is an extremely high standard. And in order to prove it, you have to show enough evidence that the Court can make a specific factual determination, first, that there is a contradiction between the testimony and the earlier testimony and that that contradiction is actually a sham and not merely the result of clarification or a mistake or a misstatement or simply some tension between the statements; and, second, that the

inconsistency between the deposition testimony and a later affidavit is clear and unambiguous.

And, in any event, the supplemental Byron declaration that's at issue is the Byron declaration about whether testing is necessary. And even if the Court were to strike that as a sham -- and we don't think the Court should -- there is other corroborating evidence -- specifically, Mr. Landvatter's testimony that Mr. Otteman contemporaneously told him that the scope was tested and worked -- that is sufficient, so the Court need not get to this issue in any event.

I think that concludes the date of invention issue. So then moving on to the other half of the priority debate, this is whether the '907 patent claims are entitled to claim priority back to the provisional patent application.

So a bit of background on the way patent applications are often filed, often an inventor files a provisional application and then has a year to follow up after that with a non-provisional application that has more detail; and then it is the non-provisional application that actually gets prosecuted into a patent. But if certain requirements are met, that patent gets priority back to the earlier provisional filing, which is often put into the record a bit more quickly to get it on file.

I want to take the claims in two different buckets

with respect to priority, because the issues are quite different between them. Dependent Claims 6 and 16 are significantly narrower than the broader independent claims and the other dependent claims in a critical aspect, which is Claims 6 and 16 -- 6 relates back to 1, and 16 relates back to 10. Otherwise, they're essentially the same. And they say -- the thing that's claimed in Claim 1 or Claim 10 is "in which the spiral cam track includes a spiral groove and in which the cam follower includes a pin."

There is no question and there is no debate that the provisional discloses an adjustment mechanism that otherwise meets the elements of Claim 1, "and in which the spiral cam track includes a spiral groove and in which the cam follower includes a pin." And the same is true with respect to Claim 10.

Nightforce's only argument with respect to Claims 6 and 16 has to do with the word "includes." Nightforce takes the surprising and remarkable position that because the open-ended claim term "includes" is used in this claim, the provisional, in order to be entitled to priority, would have to disclose every possible structure that could be included in the cam follower, in addition to a pin; otherwise, the claim is invalid.

I say that that's surprising because it is not the law. Nightforce cites no authority holding that unclaimed

elements, such as this, are required to be supported either in a patent specification or in a provisional application. And this is important, because it's the same test. It's the same enablement and written description test that applies to the provisional and to the specification itself.

So if Nightforce's position were adopted, not only would every provisional application but also every patent specification case, every time an open-ended term is used, it would have to call out every possible, imaginable structure that could be added to the claim structure, because if a later defendant, under Nightforce's position, could envision some hypothetical structure that is not disclosed in the provisional, that would invalidate the patent.

That simply isn't the law. There is no way that a patentee could include every possible structure within its claims. And the vast majority of patent claims use the open-ended term "comprises," which -- we've cited authority in our brief -- is exactly the same as "includes." They both mean the accused device has to have everything that's in the claim language, but it can have anything else in addition to that and still infringe.

And the Federal Circuit -- and this is a non-precedential case, but it has addressed this issue and said, quote, There is no precedent requiring a patentee to disclose or enable unclaimed elements. And I think it's

telling that this is in a non-prec decision. The Federal Circuit did not think this was a controversial point of law.

The only case that Nightforce points to to dispute this is the *D Three* case, in which Mr. Davis was counsel. And Nightforce says, well, there the washer could have been either above or below. And that's true. The claim language in *D Three* is broad enough, it doesn't say whether the washer is above or below.

But the critical thing is -- the critical difference is here the bushing is not claimed anywhere in the claim. The washer in *D Three* was required by the claim. And so the claim language here does not say anything about a bushing one way or another, no matter where it is. It simply says you have to have a pin in your cam follower and you can have anything else, as long as you have a pin.

There is no legal requirement that a patentee disclose or enable the unclaimed elements of anything else that falls within that "including." That legal issue is the end of the analysis as to Claims 6 and 16. And on that basis, partial summary judgment should be entered that Claims 6 and 16, at least, are entitled to priority back to the provisional application.

There is a hotter dispute as to the other claims.

And the question is: Would a person of ordinary skill in the art understand, from looking at the provisional disclosure,

that Mr. Otteman possessed a rail and fork embodiment?

And the two cases here, Trading Technologies and Hologics, are discussed in the briefing. In Trading Technologies, it describes an example where there is a single-action user input device. And the example given is a single mouse click. So it's single-action user input device. It's not like a keyboard --

THE COURT REPORTER: Counsel, I'm going to have to have you slow down.

MR. BRUNETTE: Sorry.

A single-action user input device, that's the term in the claim at issue in *Trading Technologies*. And the provisional application in *Trading Technologies* calls out a single mouse click as an example for that single-action user input device.

And the argument is made -- I actually don't remember if it's a provisional or if it's a specification, but it doesn't matter; the test is the same. The question is whether there is written description support for a patent claim that is broader and claims the entire genus of single-action user input devices, not just a single mouse click.

And the Federal Circuit finds that there is support because a person of skill in the art would readily understand from saying, well, you could use a single mouse click because it's single action, that there are many other things, like a

double mouse click, that are also a single user action; and, therefore, that disclosure of the single mouse click is sufficient to support the claims, even though the claims are broader than what was literally disclosed in -- and, as I say, I forget whether it's the specification or the provisional.

In Hologic, the Federal Circuit clarified that there is a lesser showing required for written description in predictable art fields.

So, for example, when the invention is mechanical and a person of skill in the art can look at a drawing and understand how the part operates, they have a broader understanding of what the alternative possibilities are in those mechanical fields, as compared to, for example, chemical arts, which is where many of the cases that Nightforce cites come from, because a chemist cannot necessarily look at a chemical formula and fully envision how the chemicals are physically interacting with each other and how small changes to the chemical formula might or might not change those interactions. There is some unpredictability in the chemical arts as compared to the mechanical arts.

So turning to the issue on summary judgment, what evidence is there to answer the question about what a person of skill in the art would understand? First, there is testimony from Mr. Byron that a person of skill in the art would understand that Mr. Otteman possessed the rail and fork

embodiment just by looking at the provisional application. On that testimony alone, Nightforce's motion for summary judgment should fail. A juror could believe Mr. Byron's testimony; and therefore find that Mr. Otteman had and understood a rail and fork embodiment at the time that he came up with the provisional application.

And just to go back for a second, because I dived into this, and I want to make sure everybody is on the same page, the reason we care about a rail and fork embodiment is because the Court's claim construction of cam track was broad enough to include both a groove or the alternative rail and fork that's discussed in the specification of the patent.

So the patent specification says the cam track -- you could do the cam track as a groove. All the figures in the patent show the cam track as a groove. But there's an offhand statement saying the cam track could also be a rail and the cam follower could be a fork or a notch of some kind that fits over that rail, and it would work the same way. So the Court construed "cam track" broadly enough that the words "cam track" include both a groove and a rail/fork type embodiment.

And now Nightforce is making the argument, well, the provisional didn't have that offhand sentence about how you could do it either with a rail or with a groove; and, therefore, it doesn't support the broader claims because of the Court's broader claim construction read on a rail and fork

embodiment. And so the debate we're having is whether a person skilled in the art looking at the provisional would understand that Mr. Otteman possessed the rail and fork embodiment, knew that you could just invert the groove and do the same thing.

The first point I made is that on Leupold's side of the ledger there is evidence from Mr. Byron that a person of skill in the art would make that conclusion, and that should preclude Nightforce from getting summary judgment on this issue.

The second question is: Can Leupold get summary judgment on this question? And there we have to look at what evidence there is on Nightforce's side of the ledger. And on Nightforce's side of the ledger, Nightforce relies on the testimony of Mr. Brandenburg. But Mr. Brandenburg is not a person skilled in the art. His testimony was quite clear that he has never designed a riflescope. He has never designed parts for a riflescope. He has no experience with optical devices of any kind.

And so this fits directly with the Federal Circuit's 2016 decision in *Sport Dimension*. I call out *Sundance* because it's another case and it preceded *Sport Dimension*. In *Sundance* there was a purported expert witness who purported to testify about obviousness. Obviousness, like the written description and enablement doctrines that we're discussing

here, requires analysis through the head of a person skilled in the art, what would such a person understand. And in Sundance the Federal Circuit tells us someone who is not a person skilled in the art and does not have experience in the relevant art field cannot tell us what was in the head of a person who is, only a person who is or is very close.

Sport Dimension makes that same analysis, but I call out Sport Dimension separately because it is very close to the facts of this case. And I will put it up.

So here is Sport Dimension, Federal Circuit, April 2016. And I've called out here the relevant language.

Mr. Bressler is the expert in Sport Dimension. The products at issue in Sport Dimension are personal flotation devices; in other words, lifejackets. And there's a debate about how the lifejacket works. And the District Court excluded the expert, saying that even though he was an industrial design consultant with four decades of industry experience, who had designed all kinds of products, he had never developed any personal flotation devices and had, quote, no experience whatsoever in the field of -- it's PFDs, but the Court changes it to "personal flotation devices."

Exactly the same is true for Mr. Brandenburg.

Mr. Brandenburg has done lots of industrial design. He has designed lots of products. He has a litany of patents. They relate, for example, to paper towel dispensers, soap

dispensers, medical devices. They do not relate to optical devices, riflescopes, or shooting sports of any kind.

In fact, Mr. Brandenburg admits that he has no experience with riflescope design, with optical design, or with any kind of focusing device. And when asked what his closest analogous experience is, the closest thing he could think of were endosurgery tools. In other words, he has no experience in the field and no analogous experience.

And if I don't have that on one of the slides, the citations for that are in the brief. But they are the Brandenburg transcript, which is Exhibit 38, at pages 11 to 17 and 238 to 242.

So on that basis, Mr. Brandenburg can't tell us what a person of skill in the art would or would not understand that Mr. Otteman possessed. And since the only evidence of record is from Mr. Byron, saying that a person of skill in the art would understand that Mr. Otteman possessed the rail/fork embodiment, that should be the end of the inquiry and summary judgment in Leupold's favor should be entered on this issue. But, at a minimum, Mr. Byron's evidence is in the record, and Nightforce can't get summary judgment on this issue.

That brings us to the third of the Nightforce defenses on which the parties have cross-motions for summary judgment. This is a somewhat novel and unusual defense that Nightforce raises. Nightforce argues that it should get a

free pass on all six years of past damages because it contends that the '907 patent was facially invalid until 2016; and, therefore, it gets a pass on all infringement before that time.

Nightforce has not made a showing that the '907 patent in fact was facially invalid. And, to the contrary, to the extent there may have been an error in the '907 patent at the time it was granted, that error was properly corrected in 2003. And although there was a further certificate of correction, making a further correction in 2016, that was a belt-and-suspenders approach, based on an argument Nightforce raised just before this litigation was filed. It was not necessary. It was done only out of an abundance of caution. And the patent was fully valid and certainly at least not facially invalid prior to that time.

So the debate here centers on the difference between a couple of cases. The two most pertinent of those are the Carotek case, which is relied upon in Leupold's briefing, and the Worlds, Inc. v. Blizzard case that is relied on by Nightforce.

Critically, as we've pointed out in our briefing, the Carotek case lines up with where the '907 patent stood in 2003 after the 2003 certificate of correction was entered. At that time, the '907 patent had a claim of priority back to its provisional application, and that claim of priority was made

on the face of the '907 patent, right on the front page, where anybody glancing at the patent could see it, but was not included in the first sentence of the specification. It's in the bibliographic data up above that. Exactly the same was true in *Carotek*, and the *Carotek* Court held that the patent was valid and therefore not facially invalid.

Worlds, on the other hand, is different. In Worlds there was no certificate of correction at the time the case was filed. The Worlds patent, like the '907 patent before the 2003 certificate of correction, had no claim of priority in the patent itself. The claim had been made in the materials filed with the application, but for whatever reason was not in the application and was not in the issued patent.

Unlike Leupold and unlike the plaintiff in Carotek, the plaintiff in Worlds did not go out and get a certificate of correction. Therefore, it did not put a claim of priority on the face of patent or in the first sentence of the specification of the patent or anywhere whatsoever in the patent until the issue was raised on summary judgment by the other side.

Now, before the litigation became final, there was a certificate of correction in *Worlds*. And in *Worlds* that certificate of correction put the claim everywhere. It put it at the beginning of the patent. It put it at the beginning of the specification. But the Court said, "Well, it's too late

now." So it doesn't look at the certificate of correction because the certificate of correction was too late.

Here the certificate of correction that we have, just like the certificate of correction in <code>Carotek</code>, was obtained early on. In <code>Carotek</code> it was during the litigation. In our case it was many years before the litigation and before there was any dispute between Leupold and Nightforce. And like in <code>Carotek</code>, the certificate of correction put the claim of priority on the face of the patent, but not in the specification.

And so Nightforce's argument centers on a USPTO regulation that requires the claim of priority to be made in the first sentence of the specification. The Carotek case, citing to a variety of Federal Circuit authorities, notes that the point of that requirement is to make it easy for someone searching the patent to see where the claim of priority is and how far back a patent claims, and that that purpose is served as well or probably even better if the claim is placed right on the face of the patent than if it's buried in the first line of the specification, which may not be on the first page and may fall after the figures. Therefore, just as in Carotek, the patent was not invalid on its face.

Now, in fallback, in its reply brief, Nightforce makes a further argument and says, well, that's true, but Nightforce -- but Leupold confused the Patent Office because

they filed their certificate of correction, the 2003 one, claiming it was the Patent Office's error, not Leupold's error, in the original application. That's all beside the point because that's all equally true in *Carotek*.

So in Carotek, the patentee claimed that it was the Patent and Trademark Office's fault, the original error. And the Court ultimately said, You know what? I disagree. I think it was the patentee that screwed up in Carotek, but I don't care, because it got corrected in time; and the correction worked just as well as if it had been perfectly correct and serves the purpose of the regulation. And that's what the Federal Circuit has told us is important and that's what it enforces.

And a consistent case is the *Prism* case, which is cited in the briefing. There again a certificate of correction added a specific priority claim to the title page of the patent but not to the first sentence of the specification, and the Court held that that was legally effective as an exercise of the Patent and Trademark Office's discretion.

Carotek also picks up on this issue and notes that the PTO would never have issued the certificate of correction, like the 2003 certificate of correction here, unless it believed that that certificate of correction was effective to correct the priority date. And since the Patent and Trademark

Office, in its discretion, allowed the correction to be made on the front page of the patent instead of in the first line of the specification and because the Federal Circuit tells us that that is sufficient to meet the policy concerns of the regulation, that's the end of the story. The patent is valid and certainly not facially invalid as of 2003.

A brief fallback position, even if the Court adopted Nightforce's argument and even if the Court thought that the patent after 2003 and before 2016 was questionable as to its validity, there is no question that the 2016 certificate of correction, adding the same claim of priority to the first sentence of the specification, makes the '907 patent valid at all times relevant to this case, because it was obtained before the case was filed.

And the '907 patent was not invalid on its face before that time because you'd have to look beyond the face of the '907 patent to find that there was any prior art even potentially invalidating the '907 patent between the time of the provisional and the time of the non-provisional filing. And since that arguable invalidity is not facial invalidity, there still would be no basis to find that there's no damages under the '907 patent.

As I said, I don't think the Court should reach that.

It's a fallback position. But even if Nightforce were right

on this -- and they are not -- it would not support their

argument.

The fourth and final issue on which the parties move -- cross-move for summary judgment is equitable estoppel. This is an equitable defense that Nightforce asserts.

Critically, there is today a significant difference between equitable estoppel and laches in the context of a patent claim for damages.

Looking backward, before a couple of years ago there were very few patent cases that ever got to the issue of equitable estoppel because there was a strong doctrine of laches. And almost any time you had equitable estoppel, you'd have laches and it was easier to prove laches.

The Supreme Court has done away with laches as a defense to a patent infringement claim for damages. It's simply no longer available because there is a specific statute of limitations. Therefore, the duty that Leupold was under that's relevant to this equitable estoppel defense is not the duty of laches, it is not the duty to bring a lawsuit in a timely manner. It is the duty to not deceive anyone about your intent to bring a lawsuit.

And Nightforce doesn't prevail just by showing delay and prejudice. It has to show deception, reliance on that deception, and resulting prejudice. And so the difference between being able to rely on delay alone -- in other words, that Leupold did not sue when it first learned of the

infringement -- versus having to prove deception and reliance on that deception is critical to why Nightforce's defense fails.

So here are the three elements of an equitable estoppel defense as laid out by the Federal Circuit: misleading conduct, which can be silence, as long as there's something more in addition to the silence; reliance by Nightforce on the misleading conduct; and material prejudice, which must result from the reliance. It can't just be prejudice divorced from the reliance.

So starting out, what evidence is there about the alleged deception? Well, Nightforce argues that the deception occurred as a result of a back-and-forth that the parties had years ago about infringement. Leupold wrote to Nightforce saying, "We think you might want to take a license to this '907 patent. It looks like you might be practicing it. Let's talk about it."

There's a back-and-forth. There's a series of e-mails back and forth. And those ultimately end with an e-mail that Leupold's counsel sent to Nightforce's counsel saying, "Here are the arguments you've made about why you think our patent is invalid. We don't agree with them. But let us know what your responses to our counter arguments are."

And Leupold gets no response to that. And then counsel for Leupold, Mr. Ferris, calls and leaves a message

for opposing counsel and hears nothing back. And ultimately Leupold doesn't sue, but things stay in Nightforce's court, waiting for a response. There is no lawsuit. In 2016 Leupold picks the issue up again, writes another demand letter, and ultimately files this lawsuit.

And so I would first point to the *ThermoLife* case from the Southern District of California in 2016, which makes clear that on summary judgment -- so there's cross-motions for summary judgment here, and *ThermoLife* is particularly relevant to Nightforce's motion that it gets summary judgment of equitable estoppel.

And in *ThermoLife* they say that the only way you can get summary judgment as to the deception prong in the defendant asserting equitable estoppel's favor is if the only possible inference from the facts is an inference of deception. If there is any alternative inference, then the defendant can't meet its clear and convincing burden -- or, I'm sorry, cannot meet its burden -- it's not clear and convincing here -- cannot meet its burden and summary judgment is not proper.

But we think under these facts, given that the ball was left in Nightforce's court, and Nightforce is the party that elected never to respond and to draw things out, that deception is not the only possible inference and, in any event, that deception by Leupold is not the only possible

inference.

And I will get to this, but there is also a question of funny business about what Nightforce was saying at the time and the potential that Nightforce misled Leupold at the time of these discussions.

The Hemstreet case from 1992 is on point with the facts of this case. There the ball was left in the defendant's court in the negotiations back and forth, and there was no specific threat to sue or allegation of infringement. There was a discussion about licensing. The same is true here. Leupold's letter was couched in terms of licensing. And the negotiations went back and forth and ended in Nightforce's court. So just like Hemstreet, we should not find any deception.

Those legal arguments aside, the facts are quite clear. So during the 30(b)(6) deposition of Klaus Johnson, who was Nightforce's 30(b)(6) designee with respect to this defense, he was asked, "Has anyone at Leupold ever done anything to mislead Nightforce?"

And he starts to repeat the question, "Has anyone at Leupold any" -- and the question is "Yeah, that you're aware of."

"Answer: No. I'm not aware of that at all.

"Question" -- getting more specific now: "Any kind of fraud or deception by Leupold?

"No, not that I'm aware of.

"What about with respect to its patent rights? Has Leupold ever misled Nightforce about its patent rights?

"Answer: I'm not aware of any -- anything like that.

"Question: You don't have any reason to think so?

"Answer: No."

That is an admission by Nightforce, via its 30(b)(6) representative, that Nightforce was never misled by Leupold. Critically, there is nothing in the record from Mr. Johnson retracting that statement or testimony or taking an alternative position on behalf of Nightforce or arguing that he wasn't prepared for his deposition or didn't know about this or explaining why.

Leupold is entitled to rely on Nightforce's admissions at its 30(b)(6) deposition, by its 30(b)(6) representatives, as admissions of the company. This alone should be sufficient to grant summary judgment.

However, even more critically and more tellingly, the record is also clear that Nightforce did not ever rely on any misleading conduct. So even if the Court were to agree with Nightforce and conclude that it was somehow misleading of Leupold to not follow up and send an e-mail, saying, "By the way, guys, we retain the right to sue you at any time," which is an action Leupold could have taken, which certainly would not have been deceptive, Leupold was not required to file a

lawsuit at that time. They could have just said, "Hey, we are reserving our rights. We could sue you any time. You're taking that risk if you don't respond to us."

There is absolutely no evidence that if there was any deception in failing to do that, in failing to be clear about the fact that Leupold might sue in the future, that Nightforce relied in any way on that lack of clarity in going forward and continuing to make the same infringing products for the next approximately 10 years.

And this is clear from a case called *Gasser Chair*. It's an older Federal Circuit case from 1995. And there the case, because it's from before the laches defense went away, talks mostly about laches, but there is a discussion of equitable estoppel at the end. It largely tracks the laches discussion.

What the Federal Circuit said is -- well, there's two parts. One is the Federal Circuit says that the defendant in Gasser Chair engaged in some egregious conduct that tipped the equities against them. But separate from that, the defendant never relied on misleading conduct and instead made a business judgment that it was going to win the litigation if the litigation was ever filed. So in that case it was clear from the testimony that the executive of the defendant was not relying on the fact that he thought the other party had given up its right to sue. He was relying on the fact that he

thought the patent was invalid and he was going to win.

And the Federal Circuit tells us that that is not the basis for an equitable estoppel defense. If a party is making a business judgment that the patent is invalid and they're going to win, then they are not relying on any deception; they're relying on their business judgment. And Ray Dennis has been extremely clear that he has made exactly such a business judgment, that he believed that Nightforce did not infringe any valid claims of the '907 patent; and, therefore, that under no circumstances, no matter what Leupold had said and no matter when Leupold had said it, he never, ever would have changed his products.

So here is some of that testimony. So the first test we have is after this litigation was filed, did Nightforce stop making these products? Because if it was making the products based on reliance on the idea that it would never get sued, that notion certainly was dispelled when the litigation was filed.

Nightforce had not changed its products. And when Mr. Dennis was asked why it has not changed its products, he said, "No need to. There's no infringement." In other words, "We're not infringing any valid claim of the patent."

Then he was asked -- so the context for this slide is he's being shown the demand letter that was sent to Nightforce shortly before this litigation was filed -- When you got this

letter, did you change what you were doing? Did you change your product to stop infringing on the '907 patent?

And he said, "No," on the basis of a legal opinion. He then stops there, on instruction of counsel, and does not disclose what that legal opinion was.

So you didn't even go down the path of exploring different design options?

"No. No. We're certain that -- we're certain."

And then we continue on: What about the '907 patent?

Well, he brings up the '907 patent. And the next

slide continues the same line of testimony, from line 4 to

line 5. The questioner points out that the cease and desist

letter at issue is not just about the '907 patent. And

Mr. Dennis says "Okay."

The questioner points out two of the other patents that are involved, and then Mr. Dennis cuts the questioner off and interjects: "So we've gone through all of these individually, Nathan, every single one through this pile. And in every one of those I've explained what you've asked me now, which is that, no, I didn't consider removing any of them from the market because I don't believe we infringe, so there's no reason to remove things from the market if you have that belief."

Then just a few minutes later in the deposition,
Mr. Dennis is asked, "So I take it, then, that Nightforce's

1 decision not to change its products had to do with its view of 2 the substance of the issues and not with the timing of this 3 letter. Is that accurate? 4 "No, it's the substance of the issue. 5 "So it wouldn't have mattered when this letter was 6 received?" 7 And "this letter" that we're referring to is again 8 the cease and desist letter saying, "We're going to sue you." 9 "No. 10 "The answer would have been the same? 11 "Would have been the same, except more years would 12 have bypassed us. 13 "Question: Even if it was received in 2007, no 14 change? 15 "Answer: Correct. I would have been in the same 16 position." 17 That testimony is fatal to Nightforce's equitable estoppel argument. Even if Leupold had clearly told 18 19 Nightforce in 2007 that they were about to sue them on the 20 '907 patent or we're going to sue them into 2016, whatever that hypothetical letter would have said, if he had received a 21 22 hypothetical letter in 2007 saying, "We're about to sue you," 23 he still would have done nothing.

Mr. Dennis was not relying on the fact that Leupold

didn't respond or didn't follow up. He was relying on the

24

25

fact that he thought he was going to win any litigation because he believed the patent was invalid. And just like in Gasser Chair, if the defendant is relying on its view of the merits and a business judgment that it will take the risk that it gets sued, then it is not relying on any deception and there is no equitable estoppel.

And, indeed, here's paragraph 11 of the declaration that Mr. Dennis put in on summary judgment in this case, where he essentially agrees with the point that Leupold is making. He says, "I reviewed and considered this information at the time" -- that's the back-and-forth that the parties had had -- "and made the business decision to risk a lawsuit by not complying with Leupold's demands."

If you take that language and compare it back to the language in *Gasser Chair*, it is almost identical to what the Federal Circuit said in *Gasser Chair* is not sufficient to support an equitable estoppel defense.

In addition, there's the question of funny business. So the *ThermoLife* and *A.C. Auckerman* cases that were discussed in our briefing point out that because equitable estoppel is an equitable defense, the Court has to consider all the equities in weighing whether equity supports barring the plaintiff's claims.

And in this case there is at least a question of fact -- if the Court had not already disposed of Nightforce's

motion for summary judgment that it is entitled to the defense of equitable estoppel, there is at least a question of fact about Nightforce's own deceptive conduct that would preclude giving Nightforce summary judgment of equitable estoppel. And that has to do with the funny business about the cameras and the dates.

So when the parties had this back-and-forth 10 years before this lawsuit, Nightforce said, "We've got killer prior art back before your patent date." And Leupold asked for the details on that, and that's exactly the e-mail where the conversation cut off. Nightforce never provided those details.

And, in fact, we now know that the killer prior art that Nightforce is asserting -- and we'll get to this when we talk about the Schmidt & Bender products specifically -- is based upon a supposed teardown that Nightforce allegedly did of a Schmidt & Bender long-range scope that purportedly happened in March of 1997, but that we know really can't have been at that time because the camera that was allegedly used to take the picture -- or that was used to take the pictures of whenever the teardown actually happened, was not on the market in March of 1997 and because the dates of the photos compared with dates of other photos taken with the same camera are inconsistent with each other, with the testimony of the witness who actually took the photos, and with a

meticulously maintained desk calendar with the days checked off that appears in one of the photos of another product with the exact same date, but could not have been taken on that date.

For all these reasons --

THE COURT: I want to interrupt you. I'm going to take a recess at this juncture.

Let's take 15 minutes, and then we'll get back together.

Thank you.

(A recess is then taken.)

THE COURT: Have a seat. I'm sorry. You're all standing up.

Go ahead. You can proceed.

MR. BRUNETTE: Your Honor, I had been talking about the equitable estoppel issue. I had reached essentially the end of what I was going to say about that.

THE COURT: Okay.

MR. BRUNETTE: So I will just dive in with the next issue.

Just a brief reference back to the road map of where we are, we talked about infringement on which just Leupold is moving. We've now talked about the four Nightforce defenses on which the parties have cross-motions, and the next two things up are two additional Nightforce defenses on which only

Leupold is moving.

So the first of those are anticipation and obviousness defenses.

THE COURT: I want you to go back a minute. I don't know that you quite finished up with your equitable estoppel. You were telling me about the funny business and the camera that was invented after the date that the photographs were purportedly taken.

How does that fit into the equitable estoppel argument that is being made here?

MR. BRUNETTE: The way those fit together is Nightforce's statement in the back-and-forth in the 2006 exchange that the -- that Nightforce had killer prior art from before the patent's filing date, which we understand now to have been these photos. And Nightforce says, you know, "Well, we've got killer art back before you."

In fact, what they were relying on in making that statement is prior art that they don't really have. And when we asked for details about what their argument is and why they think that it gets before our real provisional filing date, that's exactly when they cut off the communications.

And so it's at least difficult to imagine how
Nightforce can, back at that time, take the position that
"Well, we're going to tell Leupold we've got this great prior
art and then refuse to say anything," and now say, "Oh, we are

the ones who were deceived. We didn't understand you. We thought that you certainly would have sued us or you would have told us that you were going to sue us," after they were the ones that said, "We've got this killer prior art," and then refused to say anything more about it.

It seems like having -- having taken those actions to try to take Leupold off the ball and keep Leupold down about moving forward, that it would not be equitable for Nightforce to take advantage of that, to then turn around and argue that the delay somehow bars the claim later.

THE COURT: While it's kind of interesting, I don't know that it adds much to your equitable estoppel argument that you already have. But that being the case, you can go ahead and move on.

MR. BRUNETTE: I think the strongest argument is the reliance point.

THE COURT: Thank you.

MR. BRUNETTE: So moving on to the Altenheiner patent, which is a patent on a set of binoculars, here is the face page of the Altenheiner patent, annotated with the critical fact, which is simple.

What is shown here is binoculars. It is not a riflescope or a telescopic rifle sight, to use the terminology of the '907 patent. Nothing in the Altenheiner patent talks about a riflescope, talks about aiming a rifle, or talks about

either a scope or a firearm in any way. It is simply a patent on binoculars.

Now, Nightforce argues, ,notwithstanding this that the Altenheiner binocular patent somehow anticipates the claims of the '907 patent. And the reasoning behind that argument -- so stepping back, the legal test for anticipation -- and we cite the Net MoneyIN case repeatedly in our briefing for this -- in order to prove anticipation under Section 102, Nightforce would have to show that a single prior art reference includes all elements of the claims arranged in the same way that they are in the claim. So if there is any difference, any element of the claim that's missing from the face of the Altenheiner patent, it can't be anticipating.

What's missing from the Altenheiner patent, as shown in the red annotation, is that it's not a telescopic rifle sight. Nightforce's argument is, yeah, but telescopic rifle sight isn't really required. They say that's only in the preamble language of the claims; and, therefore, it's not a limitation of the claims.

If this preamble argument sounds vaguely familiar to the Court, it's because this is a fight that we had on several other patent terms at the claim construction stage about whether preambles or when preambles are limiting, because sometimes they are and sometimes they're not.

And a critical issue that the parties briefed and

that the Court decided at that time involved situations where the preamble provides antecedent basis for terms used in the body of the claims. And where the body of a claim uses -- uses the phrase that is also in the preamble and the preamble is necessary to provide antecedent basis, then the preamble is limiting. There are a variety of case cites in our claim construction brief and also in the Markman order adopting that position.

And so the question is -- and it's docket 69, at 15 to 16, is where the Court takes this on with respect to a different patent, but it's the same issue.

So let's look at the claims of the '907 patent to assess whether a telescopic rifle sight, which is right there in the first four words of Claim 10, is necessary to provide antecedent basis for anything else in the claim. And the full preamble here is long, but it is "a telescopic rifle sight having an adjustable focus setting and an adjustable aiming offset, the telescopic rifle sight including a tubular housing," and so on, all the way down to "comprising."

What you can see is that in 10(a) and 10(c)(ii), at the very end, highlighted in blue, is the language, "the telescopic rifle sight."

So "the telescopic rifle sight" can only refer back up to "a telescopic rifle sight" at the beginning of Claim 10, which therefore provides antecedent basis for the telescopic

rifle sight, and telescopic rifle sight is a limitation of the claims.

In addition, the additional phrase, "the telescopic rifle sight, including a tubular housing" used in the preamble provides antecedent basis for the phrase, "the housing," which is used later in the preamble and in 10(a), 10(b), the flush language of 10(c), in 10(c)(i), and in 10(c)(ii).

And this point is discussed further in the claim construction briefing but was also decided by the Court: When just a small part of a longer preamble phrase is referenced subsequently in the body of the claims, such as "the housing" here referencing the longer phrase "the telescopic rifle sight including the tubular housing," the entire phrase from the preamble, not just the shorthand version, is limiting.

Again, that's fully briefed in the claim construction briefing and I believe is addressed in the *Markman* order as well.

So given the use of "the telescopic rifle sight" and "the housing" in the claim body, a telescopic rifle sight is required for a product to infringe or anticipate -- because the test is the same -- the claims of the '907 patent; and, therefore, Altenheiner is not anticipating prior art.

Nightforce's fallback position is, well, if
Altenheiner isn't anticipating, then it renders the claims
obvious. Now, Nightforce, again, is not moving for summary

judgment of obviousness; Leupold is moving. And so the question is: Is there any evidence that Nightforce could rely upon to show that -- or to convince a person, a reasonable juror, that the claim is obvious by clear and convincing evidence?

And there are key questions that Nightforce has to answer that it cannot answer because it has no evidence. So there is no evidence in the record why a person of skill in the art would select Altenheiner to build a rifle sight, no evidence of why or how a person skilled in the art would modify Altenheiner to make it into a rifle sight, and no evidence of any non-hindsight rationale to modify Altenheiner into a rifle sight.

What evidence there is is the Byron testimony establishing the opposite. There is not much from Mr. Brandenburg on this point. But if Nightforce were to point to Mr. Brandenburg's testimony, as discussed earlier, for the same reasons set out in *Sport Dimension v. Coleman*, Mr. Brandenburg is not a person of skill in the art in the field of rifle sights.

I do want to point out at this point a question that we kind of skipped over when we talked about *Sport Dimension* before and an argument I expect Nightforce may make is: What is the field of art of the '907 patent and is it really riflescopes? That's one of their arguments, is it's not

really riflescopes.

But we just went over that point now on anticipation, and we can definitively say that the '907 patent requires a telescopic rifle sight. So the field of the invention is a telescopic rifle sight, just as the first words of every claim set out some variation on a telescopic rifle sight.

And Mr. Brandenburg has no experience in that field and therefore cannot tell us what would be in the head of a person skilled in the art at the time of the invention in terms of why they might pick out -- or not -- Altenheiner to build a rifle sight, how or why they would modify Altenheiner to make it into a rifle sight or why they would be motivated or have a rationale to do so.

And absent that evidence, some basis for that evidence -- and it can't come from Mr. Brandenburg -- Nightforce can't win on that defense, and summary judgment is appropriate.

The last issue as to the '907 patent is another Nightforce defense. This is the Schmidt & Bender prior art scope. This is where we get into the photos. And, again, it's only Leupold asking for summary judgment on this issue.

So Nightforce has -- is arguing that a Schmidt & Bender scope was itself prior art to the '907 patent. In order to prevail on that, Nightforce has to show, since Schmidt & Bender was making those scopes in Germany, outside

the United States, that the scope was publicly available in the U.S. more than one year before the date of the filing of the '907 patent, which, as we discussed earlier, Leupold contends the appropriate filing date is the priority date of the application. So the date that Nightforce has to get the Schmidt & Bender product in front of is January of 1998.

This is an affirmative defense that Nightforce has to prove by clear and convincing evidence. And instead of clear and convincing evidence, Nightforce has no evidence from which a rational trier of fact could find that there was a Schmidt & Bender scope that had the patented spiral cam system inside that was available in the United States before the critical date in January of 1998.

There are three general kinds of evidence that

Nightforce tries to rely upon, and none of them help it out to

make this showing. The first is advertisements. The second

is the photos and testimony about a teardown, at some unknown

date, of a Schmidt & Bender device. And the third are two

Schmidt & Bender e-mails, which are inadmissible hearsay.

So going through those, first, the advertisements that I've shown on slide 58, which is up on the screen now, is an example of one of these advertisements. And they certainly show — this one dates from the fall of 1997, and it shows that Schmidt & Bender is selling some kind of a scope with a third turret on it, and that's what both the spiral cam scopes

and a variety of other prior art scopes that used different designs to accomplish parallax focus have. There's nothing about the text or the image of this advertisement -- and it's exemplary; I think the same is true of all the other advertisements that are in the record -- that says anything about what's inside that scope and whether it's a spiral cam or an orbital pin or some other design. They simply don't tell us. All that this can prove is that Schmidt & Bender was selling some kind of side parallax focus scope.

They also don't tell us whether the scopes were in the United States. And the advertisements themselves can't be a printed publication that would be prior art because they don't disclose the spiral cam mechanism.

Next, Nightforce tries to fill this in by saying,
"Well, we know what was inside those scopes because we tore
one down." All we know there is that at some point Nightforce
got its hands on a Schmidt & Bender long-range scope. We
don't know if it's the same kind of scope that was being sold
in 1997 or not. We don't know when Nightforce got its hands
on it, and we don't know when Nightforce tore it down. We
don't even know how Nightforce got its hands on the scope or
whether such scopes were publicly available in the United
States.

In fact, the photos of that teardown show only that some Schmidt & Bender scope had a spiral cam mechanism. The

dates on the photos are demonstrably incorrect. They're inconsistent with when the camera was available. They're inconsistent with other dates that Mr. Stockdill, who took the pictures, identified and the dates of other photos taken with the same camera. And other photos taken the same — purportedly taken the same date, dated the same date by the camera, are inconsistent with a desk calendar shown in one of the photos with the dates crossed off, even though

Mr. Stockdill testified that he's meticulous about changing calendars and that if he walks into a conference room and sees a calendar that's wrong, he changes it; and that if he sees a VCR flashing, he feels compelled to set the VCR clock.

So this guy, who's meticulous about dates, has a picture of his own desk calendar on his desk, with the dates crossed off, that cannot be consistent with the month or date of these photos.

And in its opposition brief to summary judgment,
Nightforce says, "Well, that's okay. We don't need to rely on
that metadata. What we'll rely on is the testimony of
Mr. Stockdill to tell us when those photos were taken."

But Mr. Stockdill can't provide that testimony. He said at his deposition that he didn't have any idea where the scope came from, when the scope was obtained. And he was quite adamant that the pictures must have been taken in March of 1997, but he admitted that he was basing that answer only

on the metadata associated with the pictures and nothing else.

So he doesn't have any independent recollection of when those photos were taken. His testimony is just repeating reliance on the metadata that we know is wrong.

So all we know is that Schmidt & Bender advertised some kind of third turret scope. And at some point -- we don't know when, we don't know if it was before January 1998 or not -- Nightforce tore down some Schmidt & Bender scope with a third turret and found a spiral cam inside.

That's not sufficient to show that any Schmidt &

Bender product was actually on sale in the U.S., that such a

product on sale and publicly available in the U.S. had a

spiral cam, and that all of this occurred before January of

1998. And no rational trier of fact could find that

Nightforce has carried its burden to prove all of those things

by clear and convincing evidence.

The last set of evidence that Nightforce relies upon are two e-mails produced by Leupold from Schmidt & Bender containing statements that Schmidt & Bender made in 2004 and 2006 about when they first shipped certain scopes. Those e-mails are hearsay. They contain out-of-court statements by Hans Bender of Schmidt & Bender and by Sabine Brandt of Schmidt & Bender, who we know from the context of the e-mails was Mr. Bender's personal assistant. So really, both of these statements are coming from the memory of Hans Bender.

Hans Bender is talking in 2004 and 2006 about his recollection of events that happened purportedly in 1997. As a result, these are not business records — his recollection is not a business record of Schmidt & Bender because it is not a record made by someone contemporaneous with the happening of the events by someone who had knowledge. There's certainly no foundation for that.

Mr. Bender is not available. There's no indication that he'll be available to testify to tell us anything about when this happened or what happened.

And even if one were to fully read and accept everything in these e-mails, notwithstanding the hearsay doctrine -- and they should not be admissible and should not be considered -- they still only say that certain scopes were shipped. They do not prove that those scopes were publicly available in the U.S.

For example, they don't identify whether any scopes that were shipped were advance shipment to a U.S. distributor, whether they were for confidential review in advance of the actual launch of the product. We have no idea when or whether those scopes were made publicly available in the United States.

And so even if Nightforce could get these e-mails admitted -- and they're hearsay and Nightforce cannot -- they still can't prove by clear and convincing evidence that scopes

with these features were available in the United States before the critical date in January 1998.

And so that gets me all the way through the issues. With that, I would reserve for rebuttal after Nightforce's presentation.

THE COURT: Thank you.

MR. CASIMIR: Is there a way to turn the light off on this? It's creating a lot of glare.

(There is a brief pause in the proceedings.)

MR. CASIMIR: Thank you so much.

All right. So we're going to start with the four issues on the '907 patent that Nightforce affirmatively moved for, and then we'll come back after that and address the issues that only Leupold moved on.

And we're going to have a little bit of a split presentation here. So the four topics of, number one, that Leupold cannot demonstrate an earlier invention and therefore the claims are invalid, I'll be presenting that topic.

Second, we're going to address the issue of whether the '907 claims are entitled to the provisional priority date; and, if not, therefore the claims are invalid. And Mr. Davis will be presenting that.

I will then come back and present on the equitable estoppel issue as well as the late certificate of correction affecting when damages are available.

So on each of these, we're going to be putting this in the context of a series of timelines. The information on this slide you don't need to pay too much attention to at this point. It's just identifying that the story of the '907 patent and these issues can be told in a series of timelines.

THE COURT: Do you have copies of your slides?

MR. CASIMIR: Oh, yes. Sorry.

THE COURT: I actually can see these a little bit better.

MR. CASIMIR: (Handing.)

(There is a brief pause in the proceedings.)

THE COURT: Thank you.

MR. CASIMIR: All right. And so let's start with a little technical background that's going to help inform all of these issues. I think it's important to understand, when we try to identify when an invention happened, what the invention is, because it's not just a component with a spiral in it. The claims in the '907 patent claim much more.

So we need to understand, what is the invention that we're looking at to determine when it was invented. And we also need to understand those claims to identify whether there's infringement. We need to see the claim elements. And we didn't get a chance to study those this morning, so we have just a brief technical background, lining up the structures of the scopes with some of the claim language so we have some

common vocabulary as we go through this.

So the first slide here is showing a telescopic rifle sight, and circled is an adjustment mechanism on the side.

And I'm going to morph this into some of the patent figures from the '907 patent. So we're overlaying a blow-apart image of the parallax adjustment knob from the '907 patent. Two items are colored. The first, in purple, is the actuator we've been talking about. And that's the piece with the little nub on it, which is the cam follower, which will interface with the light green piece.

We can't see the groove on the other side of it, but on the next slide here, we're blowing that up and turning that around so you can see the drive face with the spiral cam groove to which that nub on the actuator would interface.

And then we're going to look at the claim language with respect to a figure from the '907 patent that shows a cross-section, and we're just reproducing the colors here.

When looked at in cross-section, the spiral cam is the light greenish-blue portion. And you can see it's interfacing with the purple portion, which is the actuator shown in side view.

So now let's look at the claim language. And we're using Claim 10 as an example. It's one of the two independent claims asserted against Nightforce and it has the most elements, so if we look at Claim 10, we will have identified all of the features that are relevant to any of the claims in

the case, in terms of the issues we're discussing here.

So we start off with the beginning of Claim 10, where we have the telescopic rifle sight. It has an adjustable focus setting. And a key feature I wanted to highlight here as part of Claim 10 -- and this is true of Claim 1 as well -- is there is a tubular housing. So we're not just claiming a adjustment knob here; we're claiming a adjustment knob in the context of a telescopic rifle sight. It's part of the larger product. The housing is identified by the dark purple in this slide.

The claim continues on to say that that housing has an interior and an exterior, first and second ends, and includes an elongate erector assembly, which has been identified in the dark purple here. And you'll recall when we discussed the '305 patent previously, that patent related to aspects of an erector tube. This is a component that has the various lens components in it and gets shifted slightly up and down in response to adjustment knob manipulations. So that is part of the claim.

Another component of Claim 10 is an adjustable aiming control device, again highlighted in the purple here, that moves that erector assembly. So, again, these claims are focusing on a lot of different components of this aiming device.

Next is the movable optical element. And this is a

piece that it will be directly interacting with -- or I guess indirectly interacting with the parallax adjustment knob, highlighted in purple here. This is within the housing and moves in a particular manner.

And then the last major component in Claim 10 is the manually adjustable focus control device. This is the component that has the actuator within it and has the drive face with the spiral in it. Claim 10 describes that this as "projecting outwardly from the exterior of the housing." So it gives us information about the location of it.

We then go into the subparts of this control device. One of them is the cam hub, again, going back to the greenish-blue color. The second component is -- again, the specificity on the cam hub, it has this drive face with the spiral cam track that we've been talking about.

And then the second component is the actuator. And this is "an actuator slide slidably mounted to the housing for movement along the longitudinal axis." So we get information about how it's mounted on the housing. And that actuator includes the cam follower -- there's the "cam follower" language -- that is "operably engaged in the spiral cam track." That's shown in the circle here, where you can see that nub is now sitting into the groove, looking at the side view of the cam hub. And that connectivity is what gives the ability to create motion within the device.

We also have another piece, which is the actuator, that "the actuator slide is operatively connected to the movable optical element." And we see that here with the little thin piece in the dark purple, where you can see it connects to the actuator on one end and then links up to the movable optical element on the other, so that when the actuator moves side to side, that connector piece will then also move side to side, pulling the movable optical element with it.

So that ends Claim 10. So we see there's a lot of pieces here that are claimed. This is the invention of the '907 patent. It is not just a cam hub with a spiral cam.

Claim 1, the other independent claim, is similar. It does not require as many pieces. It does not require the erector or the knob adjusting the erector, but it does require the movable optical element and the connectivity between that and the focus control knob.

Let me stop there and see if there are any questions on the technical description before we go into the subject matter of the four issues.

THE COURT: No. I'm good. Thank you.

MR. CASIMIR: Okay. So issue No. 1, that Leupold cannot demonstrate an earlier invention -- and, of course, from the introductory presentation, what we're talking about here is an invention earlier than the German publication.

It's important to note here that when prior art is identified that predates the date of filing of a patent application -- and in this case, this prior art predates both the patent filing date as well as the provisional filing date -- the burden then shifts to the other party, to the patent holder, to demonstrate that they can prove an earlier invention. It is Leupold's burden of production to demonstrate that here. They need to provide evidence that demonstrates that point. And they do not have probative evidence on that point, as we'll see.

Under the law, there are different processes one can use to show earlier invention. In this case Leupold is only relying on one of those processes, which is that they are required to show an earlier conception date -- in other words, the fully formed idea of the invention was in the minds of the inventors prior to the prior art date -- and reduction to practice, that a prototype was made and shown to work for its intended purpose. And Leupold cannot meet its burden on these grounds.

A lot of the presentation earlier today was related to the conception component. For the purposes of this motion, we're not disputing conception. There are significant problems with their conception evidence, but we don't need to get into those here. The reduction to practice component alone is sufficient to grant this motion, and that's been our

focus in our motion.

I think the reason we've heard a lot about the conception is they have some evidence of conception. Again, we're not getting into why that evidence is faulty, but they lack evidence of reduction to practice. By merging those two concepts, I believe they've tried to make it appear that there's more than there actually is.

All right. So let's look at our first timeline here. So a key date is the filing date of the patent itself, not the provisional, but the final version that is the granted patent. This was January 31, the year 2000.

Leupold is claiming that it deserves a priority claim for its claims asserted in this case to a provisional patent application, which was filed January 29, 1999. We'll get into that dispute as the second point. But that marks our two key dates for identifying prior art.

Prior art that's prior to either of those is relevant to this case. Most relevantly, however, is the prior art we've been describing as the German publication. This is the Schmidt & Bender patent describing their own spiral cam design that was published on March 26, 1998, predating both of the filing dates. This was based on a German patent filing initially made on November 22nd, '97. It took several months for that to publish. It's the publication date which acts as prior art under U.S. law, so the March 26, 1998 date.

What makes this issue simpler than it might have otherwise been is the parties acknowledge -- there's no dispute on this -- that if the German publication is prior art, either because the claims are not entitled to an earlier priority date or because Leupold cannot show earlier invention, the claims are invalid. There's no dispute in this case that that German publication teaches all of the elements of the asserted claims.

And a simple picture here helps illustrate that point. You can see that the earlier Schmidt & Bender invention looks nearly identical in terms of its structure to what was filed later by Leupold.

And I'll wait for you to look away, okay, before I shift to the next slide.

Thank you.

So as we'll see, focusing on reduction to practice, there is no probative evidence of reduction to practice. A number of items of evidence have been highlighted. We'll deal with each of them individually to demonstrate that they do not link to the '907 patent, or if it's testimony, that that testimony was recanted.

What does the evidence actually show, the evidence we have in hand about when reduction to practice occurred? Let's go back to our timeline.

And so the first item I'm highlighting here I've

added to our old timeline, is in the middle there is a

November 24, 1998 date. We know from document production that

Leupold was aware of the Schmidt & Bender patent before it

filed its own patent. We know that because they received an

English translation of the original German document on

November 24, 1998. So they had the Schmidt & Bender patent in

hand, with all of the details in it, before they filed their

own patent application.

In December 1998 and after that period, going into 1999, we get the actual documents indicating work on reduction to practice. So we see CAD drawings, engineering drawings that appear to have been the type that would have been sent off to third-party manufacturers to make parts. We see the actual work being done on a prototype starting as early as December '98 and afterwards, much of the work in 1999. All of this is after the date of the German publication.

So the real evidence, the concrete evidence, where you can see the pictures and line them up to the product, comes afterwards. The documentary evidence to corroborate reduction to practice only appears after the German publication.

All right. So we need to understand the legal standard here. To demonstrate reduction to practice, Leupold must demonstrate two things: first, that a prototype was made prior to the German publication; and, second, that the

prototype worked for its intended purpose.

What evidence is required to meet that burden?

Inventor testimony can be part of it, but the law says inventor testimony alone is insufficient. There must be corroboration. Why is that? Inventor testimony is oftentimes, in these patent cases, old, stale, sometimes biased. The law is crystal clear we cannot rely on that testimony alone. And what we run into in this case is both problematic initial testimony and a complete absence of relevant probative corroboration. And the corroboration must show both that a prototype was made and that it worked for its intended purpose.

So let's start with the "worked for its intended purpose" because, in a sense, it makes the case very straightforward and it makes it easy to find, on summary judgment, invalidity in favor of Nightforce's motion. The reason for this is Leupold has provided no corroborating evidence that a prototype worked for its intended purpose prior to the German publication. There is no evidence. That is issue dispositive on its own.

Recognizing this issue, in the middle of summary judgment briefing Leupold came forward with a late-filed declaration from its expert, for the first time taking a position and arguing that this invention is so simple no testing was required to demonstrate that it worked for its

intended purpose. They needed to say that because the case was over otherwise.

We'll get into that specific testimony. We'll get into the law on that issue, because the late-filed Byron declaration does not satisfy the law on the issue, and the cursory language used on it does not provide a factual basis to support that point, regardless of what the law is.

Keep in mind, now that we've looked at what the invention was in those initial slides, the invention is not just that cam surface. The invention is this device that has all of these components working together, moving parts, sensitive parts, sensitive optical parts.

All right. So let's walk through this late Byron declaration, keeping in mind that before this was filed, we were done. The '907 was invalid. One of the prongs of corroborating evidence that was necessary was not in the case. And rather than providing that evidence, we're now hearing that they don't need to because this is one of those special cases where the invention is so simple, no testing is required.

Problem No. 1 with the Byron declaration is it says the exact opposite of every position he had taken in the case before that moment. And we see a quote here from Mr. Byron, from his expert reports, that "Solving a design problem in the field of riflescope adjustments has always involved severe

testing, such as impact tests, recoil tests, submersion tests, and pressure tests," the exact opposite of this late-filed statement he's making.

Other statements from Mr. Byron: "A riflescope is a precision optical instrument which is subjected to forces that bend and distort it, yet when it returns to rest, it must still return all of its component to the same zero point without damage. The design and mechanisms in the patents asserted by Leupold in this case incorporate these requirements."

That leaves very little doubt about whether testing is required or not. And we know that. The claim we looked at has sensitive optical components connected by fragile pieces to each other, creating movement, that all have to be handled in very sensitive ways so that when it's mounted on a riflescope -- or mounted on a rifle and the rifle is fired, all of these points that Mr. Byron historically had made are designed into that product so that the product does not fail.

Mr. Byron made similar assertions in four other paragraphs. The citation is here. This is also cited in our brief.

In addition to being contrary to his own prior testimony, it's contrary to everything we've seen in this case so far. So on June 18th, Inventor Otteman signed a declaration that was written by Leupold, testifying that a

working prototype was made and tested. So apparently he felt testing was needed. He did testing.

On June 29th, during his deposition, Mr. Otteman, the inventor of the '907, testified that testing is important. So the inventor disagrees with the Byron's new position. He agrees with his original one, disagrees with his new one. Otteman didn't remember when he actually did the testing and didn't remember what testing he did, but he did note that it was important.

On September 10th Byron submitted a rebuttal report on the issue of validity, asserting that the evidence in the record showed that the inventor had demonstrated that "it" -- the invention of the '907 patent -- "worked for its intended purpose by making a working prototype," and then went on to discuss the importance of testing. Everything we saw before summary judgment, testing was mandated.

September 25th Mr. Byron is deposed and extensively questioned on the issue related to the '907 patent about evidence for whether -- whether there was any evidence that testing was done that it worked for its intended purpose. At that point Mr. Byron never raised this issue that testing was not necessary. Again, not an issue until they needed it to be to try to salvage what was a legal position that loses then validity on summary judgment on the '907 patent.

Importantly, October 5 Leupold moved for validity on

the '907 patent. So they have a motion saying that the '907 is valid around the German publication, arguing that they had earlier invention. So in this case they bear the burden to show reduction to practice. They relied on Byron's rebuttal report and all of his historic testimony, which says testing is needed. They never raised the issue that testing is not necessary.

They carried the burden. They had to show that reduction to practice occurred. They had to show that a prototype was made. They had to show that that prototype worked for its intended purpose. And if they believed no testing was required, they needed to make that argument.

Silence. It's not in there. Why? Because that has never been their position in the case until it needed to be after Nightforce submitted its summary judgment motion, also on October 5, calling out this absence of evidence that's fatal to the position of validity.

And then 21 days later, along comes the late Byron declaration with his contradictory testimony, changing his position, for the first time saying the invention is so simple, no testing is required.

So let's talk about that declaration. First,
Nightforce takes the position that it should be dismissed as
coming in too late. This is an issue of validity that Leupold
bore the burden on in their initial summary judgment motion.

This is an issue that's been in this case since its beginning.

Why are we seeing it after substantial summary judgment briefing is in place? We know why. They had to do something. Otherwise, they were going to lose this case. It is improper.

In their briefing, they argued that Nightforce needs to show prejudice to be able to argue that the document is too late and to have the Court dismiss it as being too late. The prejudice here is clear: Absent this late declaration, the patent is invalid.

Further, the declaration should be dismissed as providing contradictory testimony. One cannot create a fact issue to try to survive summary judgment by submitting an affidavit contradicting the prior position. We can't create disputed facts by disputing things ourselves, our own testimony.

We highlighted the sham affidavit rule in our briefing on this. Leupold responded with a surreply on that point, citing several cases; and we heard a little bit about that today. Their cases are unavailing.

They cite the Kennedy v. Allied Mutual Insurance case to suggest that it's not an absolute rule that if some testimony is contradictory, you throw out the second declaration. However, that case tells us that it is the general rule and that there needs to be circumstances in which

the second affidavit can stand; and those circumstances are that the second affidavit needs to explain the difference.

That case, giving examples, says perhaps in the original testimony, the original declarant or deponent was confused, and they can clarify that in their second affidavit.

In this case Leupold makes an attorney argument that they believe the testimony is not inconsistent because earlier, they are alleging -- purely by attorney argument -- that the earlier testimony was talking about prototyping for commercialization, and this new testimony is talking about prototyping for the original engineering and design. We'll see in a second that that's nonsense.

But what's lacking to defeat the sham evidence rule is Byron telling us that, saying, "Here I'm saying something that appears to be exactly the opposite, and here's why my earlier inconsistent testimony differs." That's missing.

The second case they cite, which was cited in their slides, which was the *Van Asdale* case, says that. They even clarified that in their surreply, describing that that case talks about circumstances where the second affidavit clarifies the first one. Here we don't have any clarification. We just have an opposite statement.

The sham affidavit rule applies. And even if it didn't, you still cannot create a disputed fact by saying one thing and then saying the opposite later where they have the

burden of proof. They have to prove earlier invention.

Lastly, and regardless of if we accept it as not being late, if we accept it as not violating the sham affidavit rule, the substance of the Byron declaration itself does not get them out of the invalidity position.

First of all -- and I encourage you to read it in detail; it's very brief -- it provides an unsupported assertion that the invention, appearing to focus on the cam component and not the entire product, is so simple that no testing is required. That simple statement contrasts the extensively developed record of all the prior testimony explaining why testing is required, giving specific reasons and talking about what that testing is.

Furthermore, the new Byron late declaration does not address the elements of the claims. The invention is the invention of the claims. Mr. Byron does not say that that whole thing is simple, and we know it's not. He didn't talk about the optical components and how they get adjusted when all of these bits and pieces moved.

And, as we'll see, the law says that there are very rare circumstances where an invention is so simple that no testing is needed; and this is clearly not one of them.

Mr. Byron did not address any of that law or any of the facts relevant to assessing that law. So his late declaration, in addition to being too late, in addition to being

contradictory, lacks the substance needed for them to salvage this issue.

Let's look at the law. So this is one of the cases that Leupold cited in its briefing, the *Scott v. Finney* case. And for simplicity, we've created the category language here. This is not language that's in the case, but it's going to make it easier to understand the different levels of testing that might be required.

The Scott v. Finney case, addressing the issue of whether testing is needed to demonstrate reduction to practice, describes several different categories of when it is required and how much is required. And it says we use a "common sense" approach.

So depending on the nature of the invention, it may need to be tested "under actual conditions of use" -- we're going to call that Category 4 -- or it "may be tested under 'bench' or laboratory conditions which fully duplicate each and every condition of actual use," so not actual use, but simulations of it -- Category 3 -- or in some cases it "may be tested under laboratory conditions which do not duplicate all of the conditions of actual use" -- Category 2 -- each of these cases requiring testing.

Lastly, "In instances where the invention is sufficiently simple, mere construction or synthesis of the subject matter may be sufficient to show that it will operate

satisfactorily" is Category 1. No testing may be required if the invention is so simple.

All right. So let's look at the case law of where things fall in the Categories 1 through 4.

So Category 1, where no testing is required, it's very difficult to find these cases. There's not many of them. The *Slip Track* case is cited here. That's one of the cases cited by Leupold. Another one in the citation chain of the various cases is this *In re Asahi*.

So the simple inventions, where the Courts have held no testing is needed, from everything we've seen, all have no moving parts. The Slip Track case was a wall bracket with holes in it. The In re Asahi case was a tube within a tube to prevent leaks; in other words, if the first tube leaks, you have a second tube around it as a backup. Really simple, no moving parts.

Category 2, where some testing is required, examples include a rail car coupled mount and a penile pump implant.

Category 3, more testing is required, not field testing, but simulated field testing, a situation where we have a perforating pipe string in a well.

And then Category 4, where the most severe real world testing is required, two cases: Payne v. Hurley, related to spark plugs which undergo stress in real life, temperature changes, pressure changes, and we need to test the prototype

to see if it's going to work; and the *Elmore v. Schmitt* case related to an oscilloscope which gets subjected to vibrations and temperature changes in the context where it's going to be used.

So where does the claim subject matter of the '907 patent fall? It is clearly not Category 1.

So in the Byron late declaration, he says that testing is not required because the "mechanical operation of the device is straightforward and predictable," without going into any discussion of the legal basis, the legal standard, or what facts he's looking at or even what parts of the technology he's looking at to make that conclusion. He can't make that conclusion with the riflescope, the optical device claimed in the '907 patent.

No evidence was provided as to why the device is allegedly so straightforward. And Mr. Byron failed to address all the claim elements, so, again, lacking.

So let's compare the designs from the Slip Track case where no testing was required. This was a simple bracket with elongated screw holes in it. That's the invention. The reason it helps withstand earthquakes is there is a little bit of give where the screw holes are. They're a little longer, so it can shift a little bit, an extremely simple invention.

Compare that to the '907. We have multiple moving parts. We have knobs that need to be rotated. We have an

actuator that slides linearly in response to the cam rotation. We have a linker arm that's moved by the actuator. We have precision optics that move with the actuator slide.

For Claim 10, we also have the erector with the sensitive lens units that have to be aligned to all of these other components. Byron already told us -- and he was correct in his earlier statements -- this type of invention requires testing.

Leupold's prior position, at every point up until they needed to say otherwise, was that this wasn't even just Category 2 or 3 -- if it's any of those categories, they're out. But their position was it was Category 4. Again, Byron says, "Solving a design problem in the field of riflescope adjustments has always involved severe testing."

And then we go into the details of those tests, which include recoil tests, pressure tests. And you're seeing trigger language here from the Category 4 cases.

Byron also says "riflescopes must also be capable of operation under severe conditions" -- more trigger words from the Category 4 cases -- "of high and low temperatures."

Byron is not unequivocal at all about this before summary judgment: "As all who are versed in the firearms arts understand, there are unique design challenges, including but not limited to: impulse loading, shock, potentially destructive oscillations, shape changes, weathering, and the

like" -- again, all of the Category 4 trigger words.

Leupold in their briefing -- again, not from the mouth of Mr. Byron, but in their attorney argument -- suggested that Mr. Byron was talking about commercial design and not original design. That's just not the case. You can see in these quotes, he's talking about design challenges.

And we have much more from him, making it clear he's talking about the original design, not commercialization.

This is the language from his deposition. I asked, "To determine whether" -- and in this case we were talking about the Windauer knob. They make the same argument in the Windauer case. All the same argument applies to the '907 as well.

It says, "To determine whether it's going to be useful on a riflescope, is durability testing, environmental testing, wear testing required?"

And then Mr. Byron asked for clarification: "Are we talking about the design or the product?"

So he wants to know if we're talking about the commercialization or the early work, which he's referring to as "design."

I clarified, "The prototype," so we have no question.

He goes on: "The prototype. As a rule, prototypes are just that. They're made for either form, form and fit, or form, fit, and function. It really depends on which stage of

prototyping you are at in order to say whether or not it could be used on a firearm."

I asked, "When we're assessing a prototype for form, fit, and function, particularly the function aspect of it, is that testing required?"

We had an objection as to whether my hypothetical was complete.

"Answer: If you are getting to the point where you are at form, fit, and function, that would be the stage where you would begin testing."

So Byron had no problem agreeing that during the design stage, testing is required of the type of Category 4.

This issue also came up in Mr. Byron's testimony when he was talking about the Altenheiner binocular prior art and trying to distinguish the complexities of riflescope design compared to binocular design to argue that they are different from each other.

So Byron says, "Binoculars, unlike riflescopes, are not attached to firearms; and, as such, binocular optical elements and mechanical adjustment do not have to be and are not designed to withstand repeated devastating forces of recoil, including from high-caliber weapons."

The obvious corollary to that is riflescopes do require such testing.

Byron's second statement: "Because binoculars are

not designed to be mounted on a weapon and to withstand recoil, they are also not engineered to manage backlash during recoil."

The corollary is riflescopes are engineered, designed to withstand recoil, again, Category 4.

Byron emphasized -- and, again, everything Leupold said before summary judgment required Category 4 testing.

Byron was extreme in his position on this, saying that "If there is any play or slop between the parts of the focus control mechanism" -- so here we're talking about the spiral cam and the actuator and the way it connects to the optical components -- "when the firearm is fired and recoil forces impact the scope, the setting, such as the focus setting" -- the subject matter of the '907 patent -- "may move as a result of recoil, potentially resulting in a miss with the next shot."

"Slight errors in adjustment, potential subtle reticle movement relative to the target with head movement in a riflescope parallax focus adjustment are critical."

"The stakes for potential slight adjustment errors in aiming a lethal projectile with a riflescope can mean life and death."

I think that's obvious with riflescopes. Testing is required.

This next slide just lines up the language from Byron

to the language from the Category 4 Payne and Elmore cases, where when there are issues of objects losing their shape, being exposed to high temperatures and pressures, to temperature changes, to vibrations, like with oscilloscopes and spark plugs, Category 4 testing is required. These are all of the trigger words that Byron used before he changed his mind.

Leupold has not provided any evidence of testing, let alone Category 4, 3, or 2. It doesn't matter which categories it's in. So there's no to practice demonstrated. On that basis alone, summary judgment is appropriate.

Earlier today there was a suggestion that

Mr. Landvatter, who is the person at Ideality who made two
parts for Inventor Otteman, testified that there was success
with the prototype. We'll get to that when we get to

Mr. Landvatter's testimony.

The citations provided by Leupold, he said no such thing. He says he actually never saw a prototype. The only communication he had is Mr. Otteman told him that the parts that were sent to him worked. We have no date of when that occurred. And there's good reasons to believe that happened in 1999, as we'll see when we get to Mr. Landvatter's testimony. That's the only other thing they've raised to suggest corroboration of "worked for its intended purpose."

That was not for the claimed invention, and there's no date on

that.

So no reduction to practice, no prior invention demonstrated. Thus, the German publication anticipates, and the asserted claims are invalid.

THE COURT: Let me interrupt you for a second. And I just -- it may be in the materials and I'm just not remembering.

You said that there was no information given to you that testing occurred. In the discovery process, was there any information that testing ever occurred?

MR. CASIMIR: There was indication in 1999, indirectly, that testing occurred, in the sense that what we saw was CAD drawings of what looked to be a completely engineered set of components that one could use to assemble a case. But we actually don't have any idea of the actual testing that was conducted.

Mr. Otteman testified during his deposition, however, that it was routine practice for these types of products -- riflescopes -- to be tested as part of the design and prototyping stage.

THE COURT: Thank you.

MR. CASIMIR: All right. So any other questions on the aspect of "worked for its intended purpose"? If not, we're going to move to whether there's evidence that a prototype was even made prior to the German publication.

THE COURT: I don't have any questions. Thank you.

MR. CASIMIR: Okay. So we think that the lack of
evidence that it worked for its intended purpose is
dispositive. But even if there was such evidence, there is no
evidence that a prototype was made prior to the German
publication, no probative evidence. And, again, this issue on
its own is dispositive. So if Nightforce prevails on this
single issue, the '907 patent claims are invalid and the '907
patent goes away.

With the issue of "worked for its intended purpose," Leupold provided nothing. With the issue of "was a prototype made," they provided a few things, three things in particular. But as we'll see, this is not probative evidence that can allow Leupold to meet its burden of proof.

So the first was declaration testimony by the inventor, Otteman. As we know under the law, without some level of corroboration, that is insufficient on its own. And as we'll see, he recanted that testimony.

Second, they provided financial records. As we'll see, there is no basis at all to say that those financial records have anything to do with the '907 patent. They have no probative value.

Lastly, they provided testimony from the part maker, Landvatter, which we saw earlier today. That was relied on for corroboration. What we saw was testimony he gave in his

opening testimony. Upon cross-examination he recanted the points we saw earlier today. He testified that he never saw a prototype. And, in fact, he testified that the parts that he made for Leupold -- and he had memory of this -- were not the parts that matched the designs that Mr. Otteman sent to him. They, in fact, matched the design from 1999, not the early design from Mr. Otteman, if we can put an early date on it.

So nothing probative from Mr. Landvatter. If there is anything probative, it suggested that any work he did related to the reduction to practice occurred after the German publication. But let's take each of those three things in turn, starting with Otteman's testimony.

So Mr. Otteman submitted a declaration in this case -- it's in the record -- saying that he oversaw assembly of a prototype in late 1995 to early 1996. On cross-examination in his deposition, he acknowledged that he didn't write the declaration and that he did not gather any of the information or evidence used in that declaration. Those were prepared by Leupold and handed to him. He reviewed them, presumably believing that accurate information was being provided to him, and signed the declaration. When we walked through the details with him on cross-examination, he recanted on the dates.

So, importantly, on cross-examination he testified that he had no independent recollection of the timing of

reduction to practice other than financial documents that were provided to him that had 1995 and 1996 dates on them. We'll get to those documents in a second. Those documents have nothing to do with the '907 patent.

So he was handed documents with 1995, '96 dates on them. He believed they might have been related to the '907 patent and signed his declaration based on that. Again, on cross-examination, after reviewing those, he acknowledged that he cannot say that those were related to the '907 patent, and he had no independent memory of when he did reduction to practice.

And, in fact, when I asked him for his independent memory, his independent memory was that his conception of the invention occurred near the filing of the patent. We know that was 1999. So his independent recollection was it was later. The only basis for 1995 to '96 for reduction to practice was these financial documents. He did not know which project those financial documents were from.

And just a reminder, his initial testimony here is insufficient without corroboration. And this is the very reason why corroboration is important, because we have someone who didn't remember anything from this time period, who had memories created by documents unrelated to the '907 patent that were the basis for his declaration.

Here's a physical copy of one of the pages from the

financial documents. What you'll see here is Ideality, Inc., the company who made two parts for Mr. Otteman, and some dates from 1995 and 1996. Lacking from this is any indication that these relate to the '907 patent at all. And no witness has put these in relation to the '907 patent, as we'll see.

So this is a check registry. It's a check registry with five dated entries from 1995 to '96 for unknown work conducted by Ideality. There are no project identifiers.

We learned from other documents in this case and from Mr. Otteman's and Mr. Landvatter's testimonies that Leupold was working with Ideality on other projects at the time. We don't have any evidence that they were working on the '907 project at the time, but they were working on other projects at the time, so it's no surprise that there are invoices from that time period to Ideality.

Mr. Otteman testified that he cannot say that those invoices, which he relied on for the date, relate to the '907 project.

Mr. Landvatter was also asked about this, and he said he cannot say that these are for the '907 patent on cross-exam. And, in fact, because he only made two parts for this project, as he recalled, the fact that there were five invoices led him to believe that those invoices are probably not for the '907 patent. He couldn't say one way or the other, but he concluded they were probably not. Why would

there be five invoices for two parts?

So these financial documents have no probative value. This was one of the two pieces of corroboration used to identify -- to corroborate reduction to practice, that a prototype was made. One of them is out the door.

Let's look at the second one, which is Landvatter's testimony. We saw again earlier today some testimony suggesting that he thought work might have happened in 1995, '96. Why was that? Well, it turns out that Leupold's attorney had met with him prior to the deposition — the citation is on the fourth bullet point here from the deposition — and previewed the relevant paragraph from Otteman's declaration showing those dates.

So Mr. Landvatter saw a sworn statement from Mr. Otteman -- and this occurred after the Otteman deposition -- showing that his colleague believed this happened in 1995 to '96. He didn't have any reason to doubt that at that time. That's the basis for him saying 1995 to '96 in his opening deposition testimony.

But again, on cross-examination, when looking at the records, he recanted. He made it clear he never saw a prototype. So he's not useful for telling us that a prototype was made. He only provided two parts to Mr. Otteman. And all of the statements in his deposition related to the prototyping -- well, it's not even related to the

prototyping -- related to whether those parts were useful was his statement, that he recalled Mr. Otteman telling him that those parts worked, not that a prototype worked, not that they got put into a scope with all those other pieces, with the erector, with the tube, with the lens unit, with the moving pieces. He had no knowledge of any of that.

I asked him if he had seen any drawings related to those, and he said, no, and he never saw a prototype. He was just told the two parts worked. When was he told that? He didn't know. The only basis he had for thinking that might have been '95 to '96 was that he had seen the Otteman declaration ahead of time.

And, in fact, when I opened up his cross-examination, I asked him if he had talked to Leupold's attorney before the case. He said he had, but nothing about the case. I then challenged him on that and asked him if he had seen the declaration, and he admitted that he did, that they had shown it to him ahead of time. I don't know if that was a lapse of memory in the 10 or 15 minutes between when he saw it and when he testified about it or if he was feeling guilty about that issue.

Again, no probative value here. Mr. Landvatter knows nothing about a prototype.

Now, the last point, which is bullet point 3 on this slide, is I had Mr. Landvatter look at pictures. So over on

the right-hand side we have two different spiral cam designs. The top one is the image from the alleged 1995 drawings that Mr. Otteman says he provided to Mr. Landvatter, upon which parts were made. The bottom one is the 1999 drawings. And you can see the top one has an incomplete spiral; the bottom one goes more than 360 degrees around.

I asked Mr. Landvatter about the initial parts he made, the first ones he made for a prototype for Leupold, and he did remember it, and he said the spiral went 360 degrees or more. It was not the design that was sent by Mr. Otteman.

So he had no recollection of seeing a prototype, but he did remember the design he made for them was of the type from 1999. It was not the design that Mr. Otteman sent him.

No probative value. All evidence indicates reduction to practice happened in '99. It's Leupold's burden to show a prototype was made, and they have no probative evidence. They have a declaration that they wrote for Mr. Otteman that he recanted. They have a financial document that has nothing to do or cannot be proven to have anything to do with the '907 patent, as corroboration No. 1, which was in fact the basis for Mr. Otteman's alleged recollection of the dates. So it corroborates nothing. It was the source of the information. And then Mr. Landvatter's testimony that he never saw a prototype and in fact believed that the part he made was from 1999.

Result: They cannot demonstrate they had a reduction to practice because they cannot demonstrate a prototype was even made before the German publication. Therefore, no prior invention, the German publication anticipates, and the asserted claims are invalid.

There are no disputed facts here. We have on the "works for its intended purpose" no evidence, on the "a prototype was made" incredibly bad evidence, written up and designed in a way to make it look like there was something where there wasn't. And on cross-examination, all the witnesses ended up recanting.

All right. That ends the initial two components of no earlier invention. I will now turn to Mr. Davis for no priority date, unless there are any questions.

THE COURT: I don't have any questions, but I want to stop before we start a new section.

So why don't we come back together at 1:00, a little less than an hour.

MR. CASIMIR: All right. Thank you.

THE COURT: See you then.

(A lunch recess is then taken.)

THE COURT: Good afternoon. Be seated.

Proceed.

MR. DAVIS: Thank you, Your Honor.

Good afternoon, Your Honor.

Before the lunch break, you heard about one independent reason why the '907 patent is invalid, because the other side can't backdate their invention ahead of the Schmidt & Bender German publication in March of '98.

A second independent basis for invalidity is that Leupold cannot backdate the claims in the '907 patent to the 1999 provisional application because the 1999 provisional application did not disclose the full scope of what was later claimed. And for that reason, the claims would not be entitled to a date earlier than the year 2000, which again postdates the 1999 German publication by more than a year, and the claims would be invalid.

So there's no dispute about that, that the '907 patent is invalid if they do not get priority for the claims in the '907 patent itself to the 1999 provisional application.

That provisional application disclosed only one design for the cam hub. There was a cam groove and a cam follower pin; and we'll get to the exact language in a minute. No claim is limited to the single design that was disclosed in 1999, so none of them are entitled to the 1999 filing date.

The timeline for this motion is quite simple. We only require two pieces of evidence and two dates. In January of 1999 Leupold filed its provisional application, which, as noted, was after they were aware of the German publication disclosing the exact same invention. January 2000, a regular

patent application is filed. And we'll get to the certificate of correction issues in a minute, but none of them affect this motion either. We'll assume for purposes of this motion that the other side is entitled to an earlier invention date and also that the certificates of correction were effective or that that issue is simply not relevant in deciding this.

So the law is somewhat difficult to apply in certain situations, but it boils down to a pretty simple principle: that you can't claim in a later patent application something that was not described in the earlier application and get priority back to the earlier application.

There's lots of cases cited in the briefing. This is a principle that dates back to a 19th century Supreme Court case quoted here, O'Reilly v. Morse: One "can lawfully claim only what he has invented and described, and if he claims more, his patent is void."

Claims broader than what was disclosed in the 1999 application simply aren't entitled to the 1999 filing date.

And we've heard -- we'll get to the evidence that the other side has cited. They get into the Byron report a little bit, and we'll discuss that. But, at best, Byron and Leupold have offered some suggestion that what was claimed in the 2000 application was in fact obvious in view of what was disclosed in the 1999 application, but that's not the test. Express disclosure is required.

And the *TurboCare* case quoted here is that which "may have been obvious is not enough to satisfy the written description requirement." That also is quoted in and the principle repeated in the *D Three* case on which we rely.

So touching on the *D Three* case that the other side tried to distinguish earlier today, it's actually a very simple illustration of a mechanical device similar to this one, where it's quite easy to see how what was disclosed in the earlier provisional application was not supported by what was later claimed.

I think the easiest example to see and one that I think Leupold has overlooked largely in the briefing is Claim 4 that was at issue in the *D Three* decision. So just walking through the facts briefly of that case, they had -- they relied on a 2009 provisional application in that case for a disclosure of what was later claimed in 2013 applications.

Well, the original provisional application showed only one position for a washer, colored in blue on this slide 50, and that was to place it above the flashing. This is a patent with claims to roof mount assemblies, such as would be used to hold a solar panel on a roof. And the washer is there to seal out the water, clearly.

So they disclose a soft rubber washer, and they disclose a single place to put it: above the flashing. And

that has something to do with some of the other details of what they claim the invention is that aren't pertinent here.

Well, the two simplest claims to understand at issue in that case and how that relates to this written description requirement that the other side has -- that Leupold has failed to comply with here is when they later claimed in 2013, they wrote claims that, one, expressly claimed putting the washer underneath the flashing, but there was just no disclosure of that in the 2009 application. So that claim was not entitled to the earlier filing date; and for that reason, it was undisputed also in that case that without the earlier filing date, the claim would be invalid, and it was.

Claim 4 is interesting because it talks about a washer, but it's agnostic about the position of the washer and the number of washers, simply recites that there is a washer.

Well, that is the third example on this slide 50. Claim 4 allowed the washer to be above the flashing, as it was described in 2009, which is fine, but it also allows for the washer to be placed under the flashing, and it also allowed for using a washer both above and below the flashing.

Those examples were not disclosed anywhere in the earlier application, and so this claim likewise was invalid because it wasn't entitled to the earlier priority date.

Now, how does that relate here? Well, here for the '907 patent, this is the extent of the written disclosure in

the provisional application filed in 1999 of the cam hub we've been discussing. It specifically called out "a spiral cam groove" and "a cam follower pin." And that is the only example in either the figures or the text of this cam hub. It has a cam groove and it has a follower pin.

When the regular patent application was filed in 2000, the description was expanded. No new figures were added, but the written -- the text was expanded a bit. Now they call it, more generically, "a spiral cam track," and they expressly recite two embodiments.

"In one embodiment, the spiral cam track is a spiral groove" -- just like it was in 1999 -- "and the cam follower includes a pin."

"In an alternative embodiment" -- a second one not disclosed in 1999 -- the cam track may be "a spiral ridge or rail and the cam follower is a notch or fork." In other words, the second alternative embodiment allows the groove to actually be a ridge above the drive face instead of recessed into it.

So here we have a similar figure to what we looked at for the *D Three* case that shows the same problem. In the 1999 application on the far left, one groove that was etched into or carved into the drive face and below the drive face was the cam.

Later, in 2000, they expanded the description in the

text and they also wrote broader claims. The claims, except for 6 and 16, all go -- only require a cam track, which we saw in the previous slide may be a groove or a ridge or a rail. The ridge or rail embodiment wasn't disclosed in '99, so the claims covering it are not entitled to the 1999 filing date.

So the parallels continue, though, with the *D Three* case. Remember Claim 4 that was agnostic about how many washers and where they were positioned, well, in the middle example -- in the third example from the left on slide 54 here, we have an example that is very similar to the problem in the *D Three* case. And this goes to all of the claims, including Claims 6 and 16, which do recite in them a groove. However, it's non-limiting language, as was at issue in the *D Three* case, and it merely recites in Claims 6 and 16 that the cam track includes a groove. It doesn't limit the cam track to being a groove, which is all that was disclosed in 1999.

So in that third example on slide 54, we've tried to illustrate just that, an example that's covered by Claims 6 and 16 as well as the other claims in the '907 patent, where a ridge or rail is above the drive face and a groove is also recessed in it. And examples similar to this were provided in our brief, and while Leupold -- Leupold took issue with them, but did not actually ever disagree that they were within the

scope of the asserted claims of the '907 patent.

THE COURT: Let me interrupt you for a second.

When you're talking about the word "groove" -- and this kind of gets back to one of my earlier questions I think I posed to the plaintiff in the case -- does the 1999 disclosure in the provisional say "groove below the drive face" or does it just say "groove"?

MR. DAVIS: It just says "groove."

On slide 52, it says "spiral cam groove formed in the drive face." And then the figures illustrate what that means, and that is recessed into the drive face.

THE COURT: And so do I have to, in order to resolve this problem, decide what "groove" means or can mean?

MR. DAVIS: Well, Your Honor, I believe you already have sufficiently answered that question for this case in the claim construction process.

In particular, Leupold, aware that this problem was coming down the line for them, advocated for a construction that a groove -- that a cam track is "a groove that is curved along its length." They wanted the cam track merely to be a groove. Your Honor rejected their construction.

And Nightforce was contending "a component of a cam hub in the form of a groove or a rail for engaging a cam follower," which expressly incorporates the additional disclosure from the 2000 application, where you have a ridge

or a rail and a cam follower that is a fork.

THE COURT: So it sounds like, from what you last read, that I was distinguishing between what a groove is and what a rail is. Is that correct?

MR. DAVIS: Yes, Your Honor. I think that it's been understood throughout the case that they are different.

THE COURT: Okay. Thank you.

MR. DAVIS: The plain meaning, I think, would support that as well, that a ridge or a rail is something above.

And I think when every witness was questioned about this, including Mr. Otteman, I think his testimony was that, you know, this was something different, was not in the 1999 application, but he recalled having that idea for an alternative embodiment. And it's expressly --

THE COURT: Explain what you just said to me again. I didn't catch that.

MR. DAVIS: Yes, Your Honor.

Mr. Otteman, the named inventor on this patent, when he was questioned about the embodiments in the patent versus the 1999 application, he was unable to identify any disclosure in the 1999 application of a ridge or rail embodiment, but he did recall that he did have that idea being a different idea than the groove, which is later described in the 2000 application here, where they expand the idea of a cam track to include a ridge or rail.

So it's Nightforce's view that, essentially for the same reasons as the locations for a washer were overclaimed in the *D Three* case, Leupold has overclaimed in this case that which was not disclosed in 1999 with claims, all of which cover embodiments that were not disclosed in 1999.

And touching on some of the evidence, other than the patent applications themselves that I showed on the timeline, Leupold has pointed to their expert, Mr. Byron, again on this issue as well. And I'd like to touch on that, because it's very — the law is clear that the burden of production, the burden of establishing evidence sufficient to show entitlement to the earlier filing date of 1999, that burden is on Leupold. There's no presumption that they get the 1999 filing date just because they tell the Patent Office that they want to claim priority to it.

Okay. The Research Corp. Technologies case we cited in the briefing is a good example explaining the burdens on summary judgment for this issue.

And going back to Mr. Byron, which is all they've really offered to try to explain that alternative embodiments are supported by the 1999 application, first, on this point, Mr. Byron provides no facts or supporting analysis to support his conclusory opinion. And the Federal Circuit is strict at summary judgment on this. The expert has to set forth the factual foundation for his opinion to survive summary

judgment. Conclusory expert assertions do not give rise to a genuine issue of material fact.

And the first case that I would cite for that is the Arthur A. Collins case, Federal Circuit, 2000, 216 F.3d 1042.

Also, the Streck case is a good example, S-t-r-e-c-k, at 665 F.3d 1269, from 2012.

Simply, Byron identifies nothing in the 1999 application that would establish what Leupold needs to establish here; and that is that a person of ordinary skill in the art, reading the 1999 application, would consider that Mr. Otteman, the inventor, was in possession of all the embodiments covered by the claims in the 2000 patent application.

The sum total of Mr. Byron's analysis on this point is a single paragraph in his report. And his report is found at ECF No. 83-2, and this quote is at 144. His conclusion is that "a rail is merely the inverse of a track" or "a groove and a cam follower that is a rail is merely the inverse of a track that is a ridge or a rail with a follower such as a fork that fits around the rail or ridge."

There is no explanation of how a person of skill in the art, looking at the 1999 application and its disclosure, would conclude that the applicant for the later patent understood and had within his possession in 1999 embodiments where there was a ridge or a rail instead of a groove on the

cam face.

Mr. Byron cites to two pieces of evidence in this paragraph on this issue. One is Otteman's deposition transcript, where Mr. Byron takes the position that Mr. Otteman had the idea, basically, that he reached the same conclusion when he invented -- that he "recognized at the time of his invention. . . that the groove embodiment depicted in the" provisional application "was a preferred alternative to embodiments with the inverse mechanism, such as a ridge or rail."

But what he doesn't say is looking at the 1999 application, a person of skill in the art would reach the conclusion that Mr. Otteman understood that or considered the ridge or rail embodiment to be a part of his invention.

And the case law is that it's really irrelevant what Mr. Otteman thought he invented. It needs to be disclosed in the 1999 patent application. The test requires an objective inquiry into the four corners of the priority document, here the 1999 application. And that's clear from the Federal Circuit's en banc decision in *Ariad Pharmaceuticals*, 598 F.3d 1336.

Mr. Byron cites to one other piece of evidence to try to support his conclusion that the rail or track was somehow within the scope of the 1999 application. That additional piece of evidence is boilerplate at the end of the 1999

application. That boilerplate said -- crafty patent lawyers add things to try to broaden stuff out. It said, "It will be obvious to those having skill in the art that many changes may be made to the details of the above-described embodiments of this invention without departing from the underlying principles thereof."

Well, in decisions preceding but certainly in the D Three case, the Federal Circuit has made clear that that boilerplate is essentially worthless these days. It's not a disclosure of anything. D Three tried to rely on the same type of boilerplate to support the different locations for the washer in that case, and the Federal Circuit rejected that as not being sufficient to show disclosure of the actual combinations of where the washer could be. And in that case the boilerplate read that "A person of skill in the art will recognize certain modifications, permutations, additions, and sub-combinations therefore."

Now, that language certainly suggests different locations for a washer might be possible, but the case law is language that makes it obvious to a person of skill in the art that there are other ways to do it is not sufficient. That's not disclosure of what the applicant considered to be an invention encompassing that obvious additional material. And the cases for that are covered in the briefing, but *TurboCare* is a good one that obvious is not the standard.

And no matter what they wrote in the 1999 application, if that renders obvious to a person of skill in the art that you could use a ridge or rail instead of a groove on that drive face as a cam, that's not sufficient to be disclosure in the 1999 application of these additional embodiments.

So that's the sum total of the evidence that Leupold relies on as allegedly supporting the 1999 application, providing support for the later claims in the 2000 application that resulted in the '907 patent. It's no more than saying that it's obvious, according to Byron, that you could use a raised ridge instead of a recessed groove. And he doesn't explain the reasons why a person would reach that conclusion reading the 1999 application. But, in any event, obvious is not the standard, so it just doesn't really matter.

And then the evidence he cites is insufficient because the Otteman testimony is irrelevant to the issue. It just simply does not matter what the inventor thought he invented. If it's in his head and not written in the patent document to inform the public, it doesn't help them on the written description case. And the boilerplate at the end of the 1999 application, that alternative embodiments may be possible, also is just not good enough.

So, in summary, on slide 56, all of the '907 claims cover more than what the 1999 application disclosed; and that

is a cam track that is a groove and a cam follower that is a pin.

I think that Leupold has effectively conceded, I think, that the ridge or rail design was not in any of the asserted claims, except they argue more strenuously about 6 and 16. But all of the asserted claims, other than Claims 6 and 16, recite only a cam track, which the written description in the 2000 application specifies can be one of two possible embodiments, a groove or a ridge. And none of those claims require a groove, and none of them require that the cam track be a groove.

As to Claims 6 and 16, they recite that the cam track includes a groove and a cam follower that is a pin. But they are not limited to a cam track being a groove, which is all that was disclosed in 1999.

So going back to the visual on that, the three examples to the right are covered by each of the asserted claims; however, not disclosed or suggested in the 1999 application.

And going to another basis on which Leupold attempted to distinguish the *D Three* case and other case law, there was a suggestion that unclaimed elements, because these are "comprising" or "including" claims, aren't relevant. But what we're pointing to are claimed elements. They claim a cam track. They claim a cam follower. But they disclosed only

one example of a cam track in 1999, a groove; and they disclosed only one example of a cam follower in 1999, and it was a pin.

So the claims -- asserted claims in the '907 patent simply claim more than was described in the 1999 application, so there is no effective claim to priority back to 1999, invalidating -- rendering those claims indisputably invalid. There is no dispute from Leupold that the claims could possibly be valid if they're only entitled to the 2000 filing date, and that's because of the German publication and other prior art. The German publication is more than one year before January 2000 and invalidates the claims once they're not entitled to a 1999 filing date.

Any questions about this segment, Your Honor?

THE COURT: No, sir.

MR. DAVIS: Thank you.

THE COURT: Thank you.

MR. CASIMIR: All right. We're now turning to the equitable estoppel. And I think this is best represented by the timeline. So let's build back a little of the history.

So we had the German publication sitting as prior art in March of 1998. What we haven't talked about yet and is relevant to this story is that not only Schmidt & Bender had done this first, but Nightforce had done this first. So the products that are accused of infringement use a design that

Nightforce was working on in the prior art time period. So in the summer of 1998, Nightforce was designing the spiral cam product which ultimately is accused of infringement.

We know that Leupold became aware of the Schmidt & Bender patent because we know that they received the German translation in November of 1998 and then filed their provisional application a couple of months thereafter.

In between the provisional application and the non-provisional application, Nightforce actually launched its first product with the spiral cam, keeping in mind that the provisional application would have been a secret document at that point. So at this point Nightforce is aware of Schmidt & Bender's work and has launched their own product.

And then in January of 2000, the non-provisional version of the '907 patent is filed.

A couple years later, in March of 2002, the '907 patent issues and, in theory, could be asserted at this point. And at this point Nightforce has products on the market with the spiral cam design.

As we'll get into in more detail when we talk about the certificate of correction case, in 2003 Leupold files for a certificate of correction to correct what no one is disputing at this point was a failed priority claim in the original filing. And, as we'll talk about, that 2003 certificate of correction is also a failure. But relative to

the timeline here, according to its interrogatory responses in this case, Leupold formed a belief in 2004 that Nightforce products infringed the '907 patent. So as early as 2004 they believed there was infringement.

In 2006, June, they send their letter alleging infringement. We don't know why they waited two years to do that, but we'll see a series of time gaps here.

Nightforce very quickly turned around and sent a response letter asserting invalidity, and it asserted invalidity on multiple grounds. One of them was identifying the German publication as prior art and pointing out to Leupold that they did not have a priority claim that would allow them to avoid it.

In December we get a second letter from Leupold following on and saying, "We've looked at your information. We believe you infringe." And notably in that letter they say, "Look at the certificate of correction that was part of the patent we gave you in our first letter."

So we know from that record that when Nightforce was arguing in 2006 that there was no priority claim, it was aware of that 2003 certificate of correction and had deemed it not functional. So at this point in 2006 Leupold was warned that it did not have a proper priority claim.

What happened next from Leupold? Almost 10 years of silence. So we have this very, very long time gap. Leupold,

to our knowledge, did nothing during this time period.

There's no evidence anything was done during this time period.

But Nightforce did do some things.

So we know from Ray Dennis, the party who was relying on Leupold's inactivity, who was deposed -- and we heard about testimony earlier today -- in 2007 assumed that Leupold had abandoned its claim. There were these 2006 communications.

About a year went by, and there was an assumption that Leupold had gone away and would not come back.

By the year 2012, six years after their initial infringement letter, damages are going away. So we know that statutorily at this time, when laches was still around as a doctrine, you couldn't get damages six years back. So by 2012 there is infringement that -- alleged infringement that Leupold was aware of and they were sacrificing damages, just giving them up. That doesn't make any sense.

And as you'll see in the briefing, we cited a Central District of California case on exactly this issue, holding that extensive silence to this effect can only be explained as misleading behavior. Why would any rational person give up damages if they're aware of an infringement?

2013 to 2014 Nightforce does more things. They dramatically expand their product offerings, both by sales volume and number of different scopes incorporating the spiral cam design. We're now many, many, many years after the

original infringement letter and many years after the assumption that Leupold had gone away. That was rational behavior.

More years go by and then we get the third Leupold letter in March of 2016, alleging infringement of a number of patents, all of the patents in this case, including the '907 patent.

Nightforce turned around and responded, explaining why, again, the '907 patent was invalid, this time highlighting its own 1999 sales, keeping in mind the 1999 sales are prior art to the regular patent but not the provisional. So, once again, Nightforce is making it clear there is no proper priority claim because it is highlighting prior art that is only prior art if there is no priority claim.

Unbeknownst to Nightforce at the time, apparently looking into this issue, Leupold files the 2016 certificate of correction to add that priority claim that had been missing up until that date.

Then in August of 2016 Leupold filed this lawsuit without the '907 patent. They sued on every other patent mentioned in their 2016 letter. The '907 was left out. Once again, the only conclusion that Nightforce can draw from that, based on what it knew, was yet again they weren't interested in asserting that patent.

The certificate of correction adding the priority claim issued in February. And then for the first time in the 10-plus-year time period, Nightforce believes they're going to get sued because they were sued. An Amended Complaint was added including the '907 patent.

So a fairly classic timeline for estoppel:

Infringement contentions were made. A massive amount of time went by. And Nightforce relied on that to expand its products.

Let's get into the legal issues. There are three requirements to demonstrate equitable estoppel: number one, misleading conduct; number two, reliance on the misleading conduct; and, number three, prejudice. And in this case Leupold does not dispute that there is prejudice, so what we're talking about is: Was there misleading conduct and was there reliance?

Leupold's initial presentation today and all of its briefing focus on the silence and they ignore the other misleading conduct. The silence wasn't the only misleading conduct. So we have the silence from 2007 to 2016, but we had a failure to correct that priority claim. And we know that -- there's no dispute in this case, without the priority claim, the '907 patent is invalid. There's no dispute from the parties on that issue.

So that patent sat out there until 2017 without that

correction, sitting out there invalid. That's misleading behavior. If Leupold ever intended to assert that patent, they would have, should have fixed that priority claim so it would have been in a position to assert. It was not.

And we saw that in 2016 when they filed the lawsuit and did not include the '907. They waited until that certificate of correction was granted adding the priority claim before they brought it, giving up more damages. Again, the tail end of that six-year window is disappearing.

Earlier today we heard that that was simply a belt-and-suspenders correction to what Leupold asserts was a 2003 appropriate certificate of correction. Their behavior belies that. The certificate of correction itself in 2016 admitted they made an error.

The loss of damages and the waiting to file the lawsuit and, again, not sending a letter to Nightforce saying, "We're waiting to fix the certificate of correction here.

We're going to sue you," but just silence again, no lawsuit on the '907, everything from the outside looks like they're not asserting it. And the fact that they weren't in a position to assert it without fixing that priority claim is independent misleading behavior.

Then we have the unexplained surrender of past damages. The Central District of California case cited in the briefing: There's no logic to giving up past damages. The

public view of that would be that you don't intend to assert your patent. And in this case, when we tie in the failure to correct the priority claim -- Leupold was put on notice about that in 2006 by Nightforce pointing out that they did not have a priority claim.

No assertion of the '907 in the 2016 Complaint itself again continues the misleading conduct, with no letter explaining it or other indication explaining it.

There's been no enforcement against third parties.

Other companies are out there with spiral cam designs.

They've never been sued and weren't sued during that window of silence. It's not just Nightforce.

There's been no patent markings. So Leupold has admitted in their interrogatory responses that they've never marked any products with the '907 patent, even though they sell products themselves with the '907 patent design. So, again, what does that convey to Nightforce and the public? That they don't have a patent they intend to assert.

And, lastly, the patent is nearly dead due to its life span. Nightforce has been on the market since before the patent was filed with their product. And almost all of the patent life has expired before they brought the suit, again conveying to the Nightforce and the world they never intended to assert this. There's lots of misleading conduct besides the silence itself.

Let's turn to reliance. And the citations are here. This is referring to testimony from Ray Dennis, who is the owner of Nightforce. Nightforce assumed that Leupold had abandoned its claim in 2007, citation to Mr. Dennis's testimony. Nightforce significantly increased its product offerings during that period of silence, relying on the fact that they were not going to be sued.

And then we didn't hear about this earlier today, but Mr. Dennis testified that Nightforce would have designed around the '907 patent had Leupold asserted that patent early and put it in a position to be enforced.

So when we heard earlier today about Mr. Dennis's testimony saying in 2007 he wouldn't have done anything different because the patent was invalid, we're dealing with a different fact pattern than the case law that Leupold was relying on because we're not dealing with a situation where the misleading conduct was just silence. The misleading conduct here was also their failure to correct that priority claim. That patent was not in a position to be asserted.

So when Mr. Dennis is talking about what he would have done in 2007 if they had brought suit, that patent was not in a position to do anything. They hadn't fixed it yet. So all the testimony they pointed to was on a side issue. The corrected patent was not there in 2007. And Mr. Dennis testified that if it had been, Nightforce would have designed

around it.

Leupold also pointed to contemporary testimony of whether Nightforce has designed around it since they have brought suit. And Mr. Dennis replied at this point that they're not going to because we're in a different situation than we were in 2006. It's a different issue.

So technically for estoppel, Leupold doesn't need to give excuses for its misleading behavior, but it would certainly be helpful to explain why all of these things happened, because we have to look at it, from an estoppel standpoint, based on what Nightforce believed and was it reasonable to believe those things. And these aren't reasonable to believe.

There's no excuse for nearly a decade of silence.

There's no excuse for waiting until 2017 to correct that priority claim. There's no excuse for surrendering the past damages or for not asserting the '907 in the 2016 Complaint.

If the certificate of correction was just belt and suspenders, why wasn't it brought in the 2016 Complaint and then the belt and suspenders dealt with afterwards?

There's no excuse for no patent marking. They're conveying to the world this patent is not going to be asserted or exist. And there's still no excuse for not going after others, which they still have not today.

Leupold introduced a few arguments against the

reliance, Nightforce's reliance position, but they're irrelevant or not sufficient for defeating the motion.

First of all, they highlighted a statement from Mr. Johnson, who was Nightforce's 30(b)(6) deponent, initially identified to speak on many topics, one of which was estoppel. And we saw the quote earlier today from that testimony where he was being asked whether he was aware of Leupold having any fraudulent behavior and he responded in the negative.

What we didn't see was the context of that question. It was not in the context of the '907 patent. It was not in the context of estoppel. It was right in the middle of a discussion of the Windauer patents, out of the blue; and one could only presume, if one was in the deponent's seat, it was about the Windauer patents.

If you read that in context, there's no way

Mr. Johnson could have understood that this was going to be

used in the context of estoppel or was on the topic of

estoppel. This was apparently a strategic "gotcha" stuck in

the middle of a series of unrelated deposition questions.

Mr. Johnson was later asked about the issues on the '907 patent and about reliance and issues associated with estoppel, and he pointed Leupold's counsel to Mr. Dennis as the person who would know that information. Mr. Dennis was subsequently deposed and testified about the reliance we're talking about here. So the out-of-context question of

Mr. Johnson is not a defense or a disputed fact that allows Leupold to avoid the motion.

Leupold also made a legal argument that if there's any inference at all that could be drawn for why the silence existed for so long, that the motion can be defeated.

Well, two points on that. First, that only addresses the silence and not the other misleading behavior. They need to address all of the misleading behavior. Second, the inferences they raise in their motion or in their briefing on this motion are not credible.

And we received three inferences: number one, that Leupold believed that Nightforce might have stopped infringing. That's not a useful inference, because the issue on estoppel is what Nightforce believed, not what Leupold believed. They're basically saying they didn't sue because maybe they thought that Nightforce stopped infringing.

We know that's not the case, though, because we know from their interrogatories that they disassembled multiple
Nightforce scopes over time, including in 2008 and 2016. They were aware that Nightforce was still using the spiral cam design. That inference is not backed up by fact nor is it relevant because the issue is what did Leupold convey to
Nightforce, not what did Leupold internally believe.

Next they argue an inference that maybe Leupold was waiting for Nightforce to respond to their communication in

2006. That might be an argument for March of 2007 or maybe
August of 2007. It's not an argument for 2016 or 2017. It's
not rational or reasonable to think that they were waiting for
10 years for Nightforce to get back to them. And, again,
Leupold's state of mind here is not relevant; it's
Nightforce's state of mind.

Lastly, Leupold argues that an inference that could be drawn is that Leupold would ultimately enforce the patent. Maybe they were just going to wait 10 years. Again, not reasonable. They would be giving up damages. And the evidence says otherwise, because we have testimony from Mr. Dennis on this point. Ray Dennis said that by 2007 Nightforce believed that Leupold had abandoned its claim. So we know that that inference is not real.

And, again, these arguments only address the silence, not the other misleading conduct.

Lastly, Leupold raises an equities argument, which Your Honor had some questions about earlier today, related to photographs and cameras and dates. That's really a nonissue and I think even factually misdescribed.

In the 2006 letter Nightforce identified two pieces of prior art: the German publication, explaining there was no priority claim. They also identified the earlier Schmidt & Bender scopes, identifying that they had obtained a scope in 2007 and 2008 that had the spiral cam design. There was no

discussion of photographs. All of that came in the 2016-to-2017 discussions, so they're points off topic here.

Further, Leupold was not in any way deceived by this if they somehow thought it was a deceptive comment. In the follow-up letter from Kassim Ferris in 2006, he indicated Leupold investigated that issue and determined that it had no merit. They were not deceived, to the extent any deception could be interpreted there. So factually wrong and a nonissue.

All equities here favor a ruling of estoppel. We've got an unjust 10-year delay where Nightforce dramatically expanded its business. And to this point, based on Leupold's damages expert's numbers, over 97 percent of the damages asserted in this case come from the '907 patent and they're tied to the six-year window between 2010 to 2016.

"gotcha." It's a "We're going to threaten you. We're going to make it look like we're never going to assert this patent to you and everyone else out in the world, and then we're going to wait until you do dramatically high volumes of product sales, and then we're going to sue you when you did that believing we weren't going to."

THE COURT: So I would have to find for this particular argument not only that there was misleading conduct, but that the purpose of the misleading conduct was

intentional and the intent was to mislead Nightforce all along?

MR. CASIMIR: There is a -- you'd have to find that the misleading conduct was misleading. How strong is the intent component?

THE COURT: That's a question. Is it simply misleading conduct or is it intentionally misleading conduct, and the intent going to, as I suggested, setting up -- essentially it's a setup: "We are intending to set Nightforce up."

MR. CASIMIR: It does not need to rise to that level. It can be misleading conduct.

THE COURT: Just simply misleading conduct, without an intent element attached to it?

MR. CASIMIR: Correct.

THE COURT: Okay. Thank you.

MR. CASIMIR: Yes.

So we have this unjust delay in adding the priority claim. It doesn't make sense why they waited. We have this unjust public perception of no intent to enforce.

And then one of the problems we have when parties wait so long to file lawsuits is documents disappear, and that's been a problem in this case. So we learned -- and we'll come back to this in the certificate of correction section.

There were the e-mails earlier today where Leupold was investigating when Schmidt & Bender first put their product on the market and was told they did so in 1997. Those e-mails were back-and-forth communications where Leupold was talking to Schmidt & Bender, and Schmidt & Bender apparently had the records because Hans Bender was able to look it up and tell them.

We subpoenaed Schmidt & Bender in this case for those same records and were told that everything has been destroyed. Had they brought suit in 2006, timely, we wouldn't be a decade-plus away from the facts. We wouldn't have missing evidence that would have otherwise been there related to the invalidity.

One of the rationales for estoppel is it is unfair to create this late situation where a party has to defend themselves, not only after they've relied on everything, but where they're basically at the mercy of this extreme delay on all fronts, including lack of evidence to defend itself, although, as we'll see, there is plenty of evidence to defend itself.

That's the end of my equitable estoppel presentation. Let me stop there and see if you have any questions.

THE COURT: No. Thank you.

MR. CASIMIR: All right. Let's turn to the last of the four positive motions that Nightforce has filed.

This is a simple one, which is the certificate of correction issue. Nightforce has moved for a ruling that damages on the '907 patent cannot start until the certificate of correction from 2017 was granted adding the priority claim, because up until that point the patent was invalid and there were no damages to be had. And we do have this convenient situation here where the parties are in agreement that if there is no priority claim, the patent is invalid.

And we've cited the *Southwest Software* case as a case supporting the concept that damages begin no earlier than the certificate of correction. So when you fix a patent with a certificate of correction, that's when your damages begin.

Timeline: This story also works well off of a timeline. So the '907 patent was filed in January of 2000. It had a priority claim listed on an inventor declaration. Under the law, that is not a priority claim. And they're not disagreeing with that. They filed a 2003 certificate of correction to try to fix that issue.

And, in fact, the Carotek case that they cite to support their position in this case makes it clear that doing such a thing is applicant error. It's not a mistake by the Patent Office. They gave some information to the Patent Office about a priority claim, but the fact that the information did not get onto the patent in the right location is applicant error according to Leupold's own case.

All right. Along comes 2003, where they filed the first certificate of correction. That did not fix the problem. In this case it had multiple problems associated with it. First, it once again put the priority claim in the wrong location.

The Carotek case which Leupold is relying on to excuse this behavior -- and, mind you, I believe this was a District of Massachusetts case; this is not well-established precedent -- excused an error that was not the same, which is to say in the Carotek case the Patent Office contributed to the mistake, in terms of where the priority claim ended up. It was not purely applicant error, as it was here with Leupold.

Further, we know from *Carotek* that the original problem that's trying to be corrected in 2003 was applicant error. There are two ways you can file certificates of corrections. One form you file if it was the Patent Office's mistake, and that's free. The Patent Office does not require you to pay for Patent Office errors.

The second requirement is -- or, I'm sorry, the second document is one where it's the applicant's error and you have to pay a fee. You have to pay the Patent Office for their time and energy to correct the mistake that you, as the applicant, made.

So not only was the 2003 correction wrong because,

again, the priority claim was put in the wrong location, it was filed as a Patent Office error, which it was not, and the fee was not paid. That fee is required. So on multiple bases, that certificate of correction was invalid.

And, as we know, we had this long period of silence and only in 2016 was a new certificate of correction filed, which ultimately issued in 2017, which is where the damages would start if there were any. In this certificate of correction they acknowledged it was applicant error, they paid the fee, and they used the right form and they put the priority claim in a location that is suitable for the government to submit it.

They argued earlier today that that was just belts and suspenders. I would say it was belts and suspenders only in the sense that these patent documents have specific rules because there's notice issues to the public, and the Patent Office requires that fees be paid and the correct forms be used. So if the belt is a fee and the suspenders is the correct form, I agree it was belts and suspenders, but belts and suspenders were required. The 2003 certificate of correction was not a valid correction. That's why they did it later on. That's why they waited to file suit.

That is the end of the certificate of correction portion. Let me see if there are any questions on that.

THE COURT: No.

MR. CASIMIR: All right. We're now going to shift from those issues on which Nightforce has affirmatively moved to those where only Leupold has. So we're going to switch mindsets here as well. In this case now what we're looking for is: Are there disputed factual issues so that Leupold's motions can and should be denied?

Let's start with the invalidity position on the Altenheiner patent. You'll recall, this is the patent with the binoculars. The Altenheiner patent is ancient. It goes back to 1978. So there's no dispute from that perspective that it is prior art that significantly predates the '907 patent, any of its dates. And it's more than one year before the provisional date, so it qualifies as prior art under 102(b). Invention dates become irrelevant. Nonetheless, it's before the alleged invention date as well.

You'll see a picture on the right showing a mechanism that is essentially identical to what we see in the '907 patent in terms of a spiral cam used to adjust optics.

Leupold's only alleged difference on why the Altenheiner patent does not anticipate or make obvious the claims of the '907 patent is that it's binoculars and not a riflescope. So we have a fairly simple issue here.

So there is an initial question of whether a riflescope is actually a distinction for anticipation. So Nightforce's position is it's obvious to use the design in the

binoculars in a riflescope, and that's backed up by expert testimony. It's backed up by Leupold's own witnesses' testimony, so we have plenty of evidence on that.

However, it goes one step further. The claims are broad enough that they don't exclude binoculars. So the claims recite "a telescopic rifle sight," not riflescope. As mentioned today, that language is in the preamble of the claim, and there was an argument about whether that should count as an element or not in a discussion about during claim construction we talked about preambles. We did talk about preambles for other patents. We did not talk about them for this case.

And now we run into a situation that was introduced in our response briefing to Leupold's opening motion.

Leupold's opening motion moved for summary judgment on every issue of validity and every issue of infringement of every claim -- nearly every claim of every asserted patent, over 70 claims in a 35-page document. They raised hundreds and hundreds of issues. Our response to that, being limited to 35 pages, responded to each of those, giving at least one example of why there was a factual dispute, but could not thoroughly address every one of the issues by argument in the briefing. We provided citations, similar to what they did for distinctions.

One thing Leupold did not do in its very brief

multi-hundred issue opening motion is develop its claim construction arguments. It did a cursory job of almost everything in introducing its arguments, including claim construction. We heard part of their claim construction argument on this point today, but its briefing does not develop the case. So this issue of anticipation remains an open issue on summary judgment.

Further, we know that binoculars can be used as telescopic rifle sights. How do we know that? So initially during the expert report stage in this case, Leupold argued that various of Nightforce's experts lacked design experience in riflescopes and therefore could not opine on certain issues. We responded by noting that their own expert,

Mr. Byron, has never designed riflescopes and that the experts were all equivalently placed. Mr. Byron, Leupold's expert, has some experience in gun part design, as does

Mr. Brandenburg, not highlighted earlier today, but they're all equivalently placed.

As a defense to that, Leupold made the point of saying that, no, in fact, while he hasn't designed riflescopes, Mr. Byron, their expert, did work on sighting, riflescope sighting. And the only example of his lifetime experience related to that was using binoculars to sight riflescopes. So it's fairly disingenuous that we're hearing that binoculars cannot be used for sighting riflescopes when

Leupold's own expert's only experience at all in designing rifle aiming systems involved binoculars.

Now let's turn to the obviousness piece, which is not an afterthought argument, but a primary argument.

So Leupold's defense to the obviousness argument is that riflescopes and binoculars are not analogous fields and that people would not look to the binocular arts to design riflescope parts. And their expert, Mr. Byron, talks about that, even though he had used binoculars himself in an aiming system, which is rather curious.

More importantly, Mr. Otteman, the inventor of the '907 patent, was asked about this and testified that not only did it happen, but it was common to look at features from one optical product, like a binocular, and use that information to help design other products like riflescopes. And, in fact, that happens at Leupold. Mr. Otteman does it himself. He has patents on both binoculars and riflescopes.

In the deposition of Mr. Regan, who is the inventor of the '305 patent, who in his various stages at the company supervised engineers and design people, testified that Leupold, first, makes both products -- that's obvious from their website -- and has during this entire time window, and that the design engineers for both types of products interacted with the various inventors, so inventors who in this space are working with design engineers from both fields.

We clearly have at least a disputed fact as to whether one of ordinary skill in the art would look at binoculars in helping select design features for riflescopes.

Furthermore, we have Mr. Brandenburg's testimony on this, Nightforce's expert. He has expert reports on this.

The primary -- I believe the only defense we're hearing from Leupold is that he's not qualified to talk on that topic.

He is qualified to talk on that topic. He has designed gun parts. He is an expert on designing small components used to adjust other features. He has as much design experience with riflescopes as Mr. Byron does in that neither of them has designed riflescopes; they've both worked on guns.

At this point Leupold has not developed a case sufficient to remove Mr. Brandenburg's testimony. We haven't had motions on that issue yet, so we have lots of disputed facts, with a debate among experts about who is right. In this case we have Nightforce's expert and Leupold's inventor on one side and Leupold's expert on the other.

Any questions on Altenheiner before I shift to the Schmidt & Bender products?

THE COURT: No.

MR. CASIMIR: All right. Now we have these old scopes that were sold by Schmidt & Bender prior to the Leupold patent. I think we can simplify this issue a lot. Almost

everything we heard about this morning, Leupold was assuming that they were entitled to a January 1999 provisional filing date and that they could go back with earlier invention dates to prior to the German publication. Obviously Nightforce has moved on those issues, and we believe that there is no dispute on those issues, that summary judgment can be granted.

Now, when we're talking about Leupold's motion here for validity, Leupold has to take the position that there's no argument on that issue, that they are entitled -- that there are no factual disputes, that they are entitled to their priority date and that there's no factual disputes, that they are entitled to an earlier invention to predate the German publication.

Of course that's not the case. So the relevant date here for the Schmidt & Bender product sales is January 31, 2000, the filing date of the patent or, at its earliest, January 29, 1999, not some earlier date. And it strains credulity that Schmidt & Bender prepared for a commercial launch in 1997 and then didn't launch the product until after January 31, 2000.

So the question is: Can the jury, from the evidence of record, conclude that Schmidt & Bender had products on sale in the U.S. prior to January 31, 2000? There can be no doubt.

Let's look at our last timeline. So in 1997
Schmidt & Bender starts advertising this product and starts a

commercial ramp-up. How do we know that? This product was not just in advertising, but it was in their 1997 catalog for sale.

Now, we heard earlier today questions about whether that -- whether the pictures in those advertisements in the catalog show the spiral cam design. They don't. But we know the names of the scopes. Those are in the catalog and the advertisements; and those scopes, by name, are the ones that had the spiral cam. We know that from later documents and information.

So we then had e-mails from Leupold's own investigation of when these products were on sale. And they did this investigation prior to threatening Nightforce of infringement. Apparently they wanted to see how they stood before they moved ahead.

So one of those e-mails -- and we just saw the header of it earlier today; we didn't see the content of it -- was Leupold inquiring, clearly for the purpose of determining whether the Schmidt & Bender products were prior art, of Schmidt & Bender when those products were on sale. Because the questions were crystal clear. They were "When did you bring this -- when was this sold into the U.S.? When was this brought into the U.S.?" And the response from Schmidt & Bender was "We shipped into the U.S. in December of 1997," really, really early and consistent with their advertisements

and magazines.

Now, Leupold has argued that we should -- we should ignore that evidence because it's hearsay. Now, we haven't had any evidentiary hearings on whether it's hearsay. There are multiple grounds by which it cannot be considered hearsay, that it's not hearsay; for example, 801(d)(2)(B), which relates to the fact that Leupold's 30(b)(6) witness on these issues admitted during his deposition, after seeing those e-mails, that he believed there was no reason to doubt it and assumed it to be true, the content. So we have an adopted admission from Leupold.

Also, 801(d)(2)(E), we don't have evidence in front of you on this, but we'd be happy to raise this if we want to have an evidentiary hearing on these documents, but this relates to -- it's not quite the alternative, because they can coexist, but there's evidence that Schmidt & Bender and Leupold were working together related to this patent to enhance its ability to assert it.

They actually had a secret license agreement between the two of them where Leupold gave up all of their worldwide rights on this in exchange for access to the German patent, which was only good in Germany and it was only good for 10 years and had very little commercial value. They gave up the store for this patent. And then there were these various communications between the parties with some very suspicious

language in it, where it looked like they may have been working together on this issue.

Again, we can get into that if you want to have a hearing. But there's not a basis, as we sit here today, to dismiss these e-mails.

All right. What happened after that? We also know from these e-mails that additional products hit the market under different names from Schmidt & Bender in 1998 and 1999, well before the 2000 filing date. It wasn't just that first one.

We also know that Nightforce obtained and tore apart one of these scopes and took photographs of it. We have those photographs, and they show the spiral.

Now, we heard a lot this morning about the date on those photographs, whether it was March of '97 or some later date. We don't need to rely on the March of '97 date here. The person who did the tear-apart was deposed, and he indicated why they did it.

You'll recall that Nightforce had designed their own spiral cam design and launched it as a product in 1999. They did this tear-apart to look at what other people were doing. And there's faxes and other documents showing that this information about the Schmidt & Bender design was being sent to a contract manufacturer that Nightforce was using to figure out how to do their own design. And we know from that

testimony that that happened no later than June of 1998.

So there was a question about when were these photographs? Are they after March of '97? For the purposes of this issue, we're happy to have them be June of 1998, significantly predating the 2000 date that's relevant here.

So we have a catalog offering to sell the product in 1997. Nightforce got their hands on an actual product, opened it up, and demonstrated that it had the spiral design in 1998, all in the relevant prior art time period.

And then just putting in a few other dates here, we know that Schmidt & Bender filed their own patent application on this design in '97, consistent with the fact that they're commercializing around that time period. It published in March of '98, and the Leupold provisional and the Leupold patent were well after these dates.

A jury can reasonably conclude that there's a -- a reasonable basis for saying, by clear and convincing evidence, Schmidt & Bender was selling products prior to these patent dates, based on the evidence in the record.

Any questions on the Schmidt & Bender prior art?

THE COURT: No. Thank you.

MR. CASIMIR: All right. We'll turn to the very last issues on the '907, which are the infringement issues.

We heard earlier today that there are two issues for non-infringement, one related to actuator, one related to the

pin. Pictured on this slide is a photograph from Leupold's infringement contentions, looking down into the scope where the knob has been removed, where they point to the bushing as the cam follower -- that's part of the actuator -- and then something down below it as the additional part of the actuator.

The '907 claims don't just say "actuator." So we heard earlier today that this issue was being posed in the context of claim construction of "actuator." It's not. The issue here is that the claims tell us about how the actuator interfaces with the other components. The non-infringement position here is that Nightforce's products don't interface in that way.

So we walked through Claim 10, for example, independent Claim 10, in our original technological introduction and noted that the language in that claim requires that the knob that contains the actuator project outwardly from the exterior of the housing. So that claim requires that the actuator be outside of the housing. It's not in the Nightforce products. It's tucked away inside.

THE COURT: Does it break the plane of the housing?

MR. CASIMIR: So Mr. Brunette earlier today suggested it did. It does not.

So if we look at the next slide, this is a higher res of the figure that he showed where the -- we can see the

component on the inside there identified as the actuator and the bushing, which they're identifying as the cam follower.

The dimensions there tuck that well down on the inside.

There are some engineering drawings associated with this product that were in Mr. Byron's expert report that show a side view and show that it's below. They're fairly poorly resolutioned, so I didn't show that slide. But it is tucked away inside.

THE COURT: So I don't know that -- is there anything -- any way that I'm going to be able to look at it and say, yes, conclusively it's one way or the other? Because you're both telling me different things. And, honestly, by looking at the diagram, I'm not convinced one way or the other.

MR. CASIMIR: This is a CAD drawing of the actual product, based on the dimensions. It does show, if you were to move those pieces, that it would be within the housing at that point.

But no, there is no evidence in the record presented for summary judgment that lets you know one way or the other.

THE COURT: Thank you.

MR. CASIMIR: All right. So we have disputed facts on that issue, at least.

Let's turn to the pin so while we're on this figure, we can look at it. So Leupold's expert initially took the

position that the bushing was a pin. But the parties agreed to claim construction language on what a pin is that made the bushing not qualify. So Leupold changed direction and they've argued that the screw, identified as No. 6 in this drawing, is in fact the pin, even though as it's used, it's completely encompassed by the bushing.

In fact, if we turn back to the photograph, looking at a top view, you can see part of the screw head shows through a hole on the top of the bushing, showing that the screw is entirely encompassed within the bushing. You can also determine it and see that from the figure. The bushing sits over the screw. The screw is covered up. It is the bushing that is the cam follower. It is the bushing that makes contact with the groove and does the operation, not the pin inside of it.

So now we're hearing argument that the pin in fact -- or, sorry, that the screw is the pin of the claims. That's all attorney argument. That's not supported by expert testimony. That's sort of a late game change by Leupold and not sufficiently supported in their summary judgment documents in a manner that allows them to obtain summary judgment of infringement on this issue.

Furthermore, this whole -- so the pin issue relates to Claims 6 and 16. And we saw earlier today the claim language said that the cam follower includes a pin. And so at

this point, even though the pin is not used as a cam follower, Leupold is attempting to read Claim 6 to not require a pin cam follower.

The claim language, when it says that the cam follower includes a pin, I think any reasonable interpretation of that and any reasonable claim construction on that implies that the pin is acting as the follower.

Now, again, there hasn't been claim construction developed on this. This is Leupold's motion. They haven't developed this thoroughly. We're not in a position to rule on that one way or another.

It's also inconsistent with the specification in terms of saying that this thing contained in something else can be the cam follower. It rasies the question of can anything be a cam follower if it has a pin in it, even if the cam follower otherwise seems not to look anything like a pin or behave like a pin or isn't a pin? It's not clear what type of cam follower doesn't have something like a pin in it.

Somehow that cam follower has to be mounted to some other piece. A reading of Claim 6 that implies that "a cam follower including a pin" can be anything just puts us back into Claim 1, and then Claim 6 doesn't make any sense.

Furthermore -- and this goes to our issue on not being entitled to their priority date -- by trying to clarify that they have an infringement case here, they're saying that

Claims 6 and 16 are broad, because they're saying that the cam follower need not be a pin but can have a pin inside of it and can include lots of other things. That only goes to hurt their argument that Claims 6 and 16 are entitled to the provisional date, which provides no support for a concept of anything comprising a pin. The cam follower is a pin in the provisional.

That concludes Nightforce's position on the '907 patent.

THE COURT: Thank you.

MR. BRUNETTE: Your Honor, I do have some brief rebuttal.

THE COURT: Yeah. Go for it.

MR. DAVIS: If you'll bear with me, as we try to do this, I'm going to have one of my colleagues help me pull up some slides that weren't in the original deck. I hope that goes well.

Your Honor, I want to take this a little bit out of both the order that Nightforce presented it and the original order. I'm going to start with infringement and then try to generally track through the order that they did, since infringement is fresh.

The first issue that we just talked about was actuator. And on the question of actuator, what Nightforce is leaving out of its presentation is the fact that Claim 1 and

Claim 10 are somewhat different, but neither of them require the actuator to extend out of the plane of the housing, and neither of them require the actuator to be directly connected to the housing.

So I put up Claim 1 earlier today, and that is on -THE COURT: I think all that -- on Claim 1 I think I
have -- I think it was a closer call on Claim 10.

MR. DAVIS: Right.

So the point I wanted to make on Claim 1 is note that Claim 1 is very different than Claim 10. The language of Claim 10 is in a slide that we have -- and, Elliott, if you could pull up -- there's a hidden slide in there that has the Claim 10 language in the actuator section. It would be right near 15.

As we start talking about that, the critical thing with respect to Claim 10 is that it requires that the focus control knob extend outwardly from the housing. Nothing about that claim language requires that every aspect of the focus control knob, every component of the focus control knob be outside the housing or outside the plane of the housing.

Instead, it only requires that some portion of the knob extend outwardly from the housing.

The actuator is but one of many components of the focus control knob. You can see that that's right at the beginning of (c): "a manually adjustable focus control device

projecting outwardly from the exterior of the housing." The "projecting outwardly" language does not require it's located entirely outside, merely that some part of the device projects outwardly.

THE COURT: Hang on just a second.

So when it says that the "focus control device projecting outwardly from the exterior of the housing," and then it talks about the direction, and then it says "the focus control device including," and that then talks about the actuator, you're saying that does not mean that it needs to be outside of the housing?

MR. DAVIS: I would clarify that slightly, Your Honor. I would say that that does not mean that it needs to be entirely outside the housing.

THE COURT: Okay.

MR. DAVIS: There is no dispute that the focus control knob, the side turret knob on the Nightforce product, extends outwardly from the housing. The dispute is whether one of the internal components of that knob is located inside or outside the plane of the housing. That's just not required by the claim language. The claim language only requires that some part of the focus control device -- presumably the knob -- sticks out to the side of the scope.

The second part of that is mounting to the housing.

So there is no mounting to the housing requirement in Claim 1

at all. The mounting to the housing requirement in Claim 10 is located in Claim 10(c)(ii), which you can see here, which says that the "actuator slide is slidably mounted to the housing," but it does not say that the actuator slide has to be mounted directly to the housing. And certainly indirect mounting is entirely possible, and that's what has happened in the Nightforce product. It does slide along the housing and it is indirectly mounted to the housing, but it is not directly mounted to the housing. The presence of intervening parts in between the actuator and the housing is not a problem because of the open-ended claim language "comprising."

The second aspect of this is the word "pin." I want to focus first on what is the pin within the Nightforce product and the question of whether it's the pin or the bushing.

The CCS Fitness case is important here. In CCS Fitness there is a two-part mechanism. So there's a mechanism that's called out in the claim language. And I have forgotten what the exact word from CCS is, but that mechanism in the accused product is made up of two different parts joined together, and CCS Fitness is clear that that is perfectly okay. You can have two different structures that are joined together that satisfy a single claim limitation or two joined-together structures that satisfy two different claim limitations, even though they're integral with each other.

And under the general concept of patent law claim construction, those are all fine as long as the claim is not so clear that it precludes that. Nothing here about "cam follower that includes a pin" says that the cam follower can't be multiple parts, one of which is a pin and one of which here is a bushing.

Nightforce also argues that the pin is not a cam follower because -- and I think the argument they're trying to make -- I'm not a hundred percent sure I'm getting it right, but what I thought I just heard was that, well, could anything be a cam follower, if it doesn't look like it acts as a cam follower, because it has a pin in it?

But, of course, anything that has a pin in it is not necessarily a cam follower. Only something that is designed in such a way that it engages into a cam track can be a cam follower, into or onto. And so the fact that there is a cam follower here that is designed to fit into the cam track is what makes it a cam follower.

And what makes it infringe Claims 6 and 16 is the fact that there is a pin, that solid metal projection in the middle. The fact that it has a bushing around it and it's the bushing that actually touches the side wall of the cam track, not the pin, is irrelevant, because the two pieces together, joined together, as in CCS Fitness, function as a cam follower.

And when Mr. Byron calls out item No. 7, he's looking at figures where items 6 and 7 -- it's the same figures we looked at earlier, where items 6 and 7 in the Nightforce assembly instructions, where 6 is the bushing and 7 is the pin, get joined together to form a cam follower. That's what he's pointing out as the cam follower that includes a pin. There's no change in Leupold's position throughout this case.

Oh, and I have a slide of that if you want to see that quickly.

Elliott, could you pull up slide No. 10?

There it is. So this is a cut from paragraph 485 of Mr. Byron's opening report where he points this out, and you can see there is text talking about what is the pin and then he points to this figure. And in the figure, item 7 that he's pointing out is assembled with item 6 already inside of it. So it is a bushing surrounding a pin that is the cam follower he's talking about there. It's the same image we looked at earlier today in my earlier presentation.

THE COURT: Does that pin have a -- inside the bushing, is it a screw? Is that how it goes into that structure?

MR. BRUNETTE: Yes.

Let's see if we can --

THE COURT: That's okay. It's not essential to my decision. I was just curious.

MR. BRUNETTE: It's this (indicating). That's a picture of how it all goes together. So that part No. 6, the right side of it, behind the flange, is threaded, so it is in that sense a screw. And those threads go into the arm that sticks out in the scope. And then the part on the left side of the flange is the pin.

THE COURT: So that bushing that fits over the top of that has a slot so that it can expand and then contract after it snaps over the top.

MR. BRUNETTE: I think the slot that's in the middle of 6 is actually so that you can screw into the arm, as if it was a screw.

THE COURT: I'm guessing that No. 7 has a slot that runs down its side in order to fit over the top of that.

MR. BRUNETTE: That's possible. Yeah, I'm not certain if it snaps around the side or if it's somewhat elastic.

THE COURT: Okay. Thank you.

MR. BRUNETTE: Changing next, Your Honor, to the issue of date of invention, I want to start with what we didn't hear from Nightforce; and what we didn't hear from Nightforce was anything about the rule of reason. Instead of talking about the rule of reason standard, Nightforce wants to make up its own standard and assert that specific corroboration of every aspect of testing in particular and

reduction to practice in general is required.

Notably, when Nightforce talked about that, it did not cite to authority, because the controlling authority is that there is a rule of reason standard. And the overall question is not whether every aspect of reduction to practice is proven by specific corroborating independent evidence, but whether the overall story is sufficiently corroborated that it is believable to a reasonable juror in light of the corroboration requirement.

And of particular importance here is the burden-shifting that I mentioned in my opening argument from the *Mahurkar* case at 79 F.3d at 1578. All Leupold has to come forward with is enough evidence that, drawing all inferences in Leupold's favor with respect to Nightforce's motion, a rational juror could find that Mr. Otteman invented earlier than 1998. Once that standard is met, then the burden shifts back to Nightforce to disprove that and persuade a jury that he did not do so.

So starting with the testing issue, because I think Nightforce spent more of its time on that and I want to dig into that first, and starting first with the evidence that there was testing -- Elliott, if you could pull up slide No. 30 -- Nightforce takes the position that there is no evidence that Mr. Otteman actually put together the scope and tested it as a prototype. And that's how we get into this

whole debate about the supplemental Byron declaration and whether testing is required or not. The Court doesn't even need to go down that rabbit hole, because there is sufficient evidence that testing occurred.

So here are some quotes from Mr. Landvatter's testimony (reading): "Do you ever recall discussing any testing Mr. Otteman did on a prototype you generated?

"Just that our part worked sufficiently.

"Okay. So going back again to paragraph 12 of Mr. Otteman's declaration, is it your recollection that Mr. Otteman communicated to you that the parts you made for him related to the spiral cam worked?

"Yes.

"And would he have communicated that to you shortly after you delivered the parts to him?

"He would have tested them right when I was there. "Okay.

"And the reason I would have gone" -- "and that's the reason I would have gone down to make sure the parts were working correctly."

So Mr. Otteman told Mr. Landvatter that he tested the parts and they worked at approximately the same time that the prototype was delivered.

Mr. Otteman also testified that he put together the entire scope and it worked. Indeed, Nightforce cites that as

evidence that he thought testing was required. But that's not what Mr. Otteman said. He didn't say he was required to test it. He said he did. This evidence corroborates Mr. Otteman's own testimony and is sufficient to find testing.

Now, Nightforce wants to talk about their idea that there are four different categories of testing, and there is a case that calls out a bunch of different examples of what might be sufficient testing under the circumstances. But Nightforce's assertion of what constitutes sufficient testing in individual cases — the idea that no testing is required only where the invention is simple and the field is predictable versus severe real world testing is required where severe real world conditions like vibration are going to be expected — is something that Nightforce made up. There is no general Category 4 test for testing. There is, instead, a rule of reason. The standard is whether the testing was sufficient under the circumstances.

And what we really know is that, in fact, while the claims of this patent require both a spiral cam mechanism and various parts of the riflescope around them, most of the parts that were used were already tested and commercially viable.

Mr. Landvatter -- excuse me. Mr. Otteman testified that when he made his prototype of the spiral cam scope -- and this is on page 36 of his deposition transcript and in even more detail at 80 and 81 -- that he worked from an existing

commercial Leupold scope. And that scope, as he testified, would have already been subject to testing. The only thing he changed out was he changed out an existing orbital pin design for the side parallax focus for the specific spiral cam parts.

Well, switching out one kind of control for another is very different from developing an entirely new riflescope from scratch.

The analogy that comes to mind for me here is if someone invented a new and better shape for a steering wheel for an automobile and they could simply take out -- do a little mechanical re-jiggering and take out the existing steering wheel and pop in their new prototype steering wheel, they would not have to independently test whether the engine still works or whether the taillight still works or whether the car hangs together over bumps.

Those are all important things in designing a car, but they're not part of testing that steering wheel prototype, even if the patent on the steering wheel prototype talks about the car and the wheel and the engine, because they're all important to how the new steering wheel works better than the old design. They're not an important part of testing whether that prototype, under a rule of reason standard, works for its intended purpose.

THE COURT: I think that's a bad example, because if

someone is putting a steering wheel on a car, I'm going to expect there's going to be tons and tons and tons of testing of that steering wheel.

MR. BRUNETTE: Oh, certainly there will be extensive testing before the product is commercialized.

THE COURT: Oh, even after you put it on for the first time, if you're putting it on a car, my guess is -- just common sense tells me you don't just put it on a car and not test it a lot to make sure that everything works.

Your point is made. I just don't know that your example is the best one to choose.

MR. BRUNETTE: I see your point, Your Honor.

I think the overall point is that the scope is already vetted. And with the addition of these parts, the parts were tested, the parts were assembled into a prototype, and the prototype worked for its intended purpose. That didn't require impact testing to know that the spiral cam mechanism would move the focus control knob.

So that brings me to the separate issue of, well, even if there wasn't evidence of testing -- actually, one more thing I want to go back and do there. As to the four categories that Nightforce came up with, sort of moving from no testing on the left-hand side to extensive testing on the right-hand side, they talk about severe real world conditions and vibration being one of the criteria that if met, if that's

something you expect the invention to encounter in real life, then you have to do more testing.

Well, that's completely inconsistent with the Federal Circuit's decision in *Slip Track*, because *Slip Track* is a mounting system that's supposed to withstand earthquakes, and yet the testing that was done was simply making the prototype and confirming its size and confirming the way that it fits on wallboard. It did not require actually putting it on wallboard and shaking it on a shake table to simulate an earthquake or putting it somewhere in an earthquake-prone area to know that it was going to work in an earthquake.

And in just the same way, even though riflescopes are subject to abuse and even though in selecting what kind of mechanism to design for a riflescope, keeping that abuse in mind is important, which is all Mr. Byron has said about the obviousness points that Nightforce is trying to turn around and make about testing. The fact is in order to know that this focus control knob works, you don't need to impact test it and weather test it, particularly when you're attaching it to a scope that already works.

Leupold also argues that Mr. Byron's declaration is late. And this is an argument about the summary judgment burdens and what happens.

Just to be clear, on October -- is it 5th or 10th?

At the beginning of October Leupold filed a summary judgment

motion which was a *Celotex*-type motion, merely pointing out that Nightforce had not met its burden on various issues.

Then Nightforce filed its motion; and in responding to Nightforce's motion, Leupold entirely properly put in the evidence that it had to prove up its claims.

That evidence was not required earlier. And the failure to anticipate the argument that Nightforce was going to make and put that evidence in in the first place in our motion is certainly not a basis to grant Nightforce's motion.

In any event, untimely expert reports are subject to being stricken only when there is prejudice, and there is no prejudice here. Nightforce says, "Well, there is prejudice because we win otherwise." But that's always true. If it's important, that's always true.

It's some prejudice beyond, "Hey, your evidence is good for you" that makes the lateness the prejudice. And that is not sufficient. There has to be something that they would have done differently that they're not now able to do to constitute such prejudice. And given that discovery is still open, there's nothing that they couldn't do, particularly since they had an opportunity to reply.

In addition, Mr. Byron's testimony that no testing is required is not inconsistent with his testimony that it is really important to understand recoil when you're designing systems for riflescopes. This is both because Mr. Otteman

started from a platform that was already properly tested and in a working commercial scope and because the point that Mr. Byron was making is you can't just go out to other fields.

This is really what Mr. Byron was saying. You can't go out to a video camera and effectively just put them on a -
THE COURT REPORTER: Counsel, I really have to have you slow down.

MR. BRUNETTE: I'll try to stay closer to the mic as well.

What Mr. Byron was saying in the testimony that they cite is that you can't simply go out to a video camera and stick it on a riflescope and expect it to work. He was not saying that in order to know whether every individual part of a riflescope is going to work, if changed slightly, that you would need to redo all of that testing.

Those are very different ideas. And the fact that he said one does not make -- the fact that he took different positions on those very different questions is not in any way inconsistent, nor is there any testimony from any other expert taking a different position.

Finally, Nightforce argues that Mr. Otteman admitted that testing was required, but that is not what the testimony said. That is simply a mischaracterization of the testimony. In fact, Mr. Otteman's transcript, page 36, lines 12 to 19 -- it's docket 92-1 -- he says -- he confirms that the prototype

would have been tested to see if it worked as intended. But he did not say that testing was required, merely that it happened. It's not an admission that testing was necessary to know if it worked.

Moving over to the broader issue of corroboration of reduction to practice, Nightforce ignores entirely the documents that are perhaps most telling, which is those 1995 drawings, which are definitively dated and were preserved on a 1996 CD with no change to their content since 1995. So we know that whenever they were sent to Mr. Landvatter, they were the same as when they were created in 1995. Mr. Landvatter tells us that he made the prototypes and that he believes they were in 1995 or 1996.

Now, in trying to rebut this testimony, Nightforce throws around the word "recants." But Mr. Landvatter and Mr. Otteman did not recant any of their testimony. They did not get up on the stand and say, "Oh, never mind. Everything I said was wrong. I take it back." That's not true.

Nightforce thinks that it got some admissions that it could use on cross-examination to undermine the credibility of their testimony. That may be right and it may be wrong. But that is what we have juries for. And so, at most, that is a reason that there's a fact dispute about what really happened and about the details. It is not a basis to grant summary judgment in Nightforce's favor, that there is no

corroboration. A jury, drawing all inferences in Leupold's favor, could believe the testimony that Mr. Otteman and Mr. Landvatter gave.

And, in particular, if you actually look at the statements in Nightforce's brief -- and there are many of them and I won't go through them all here. But if you look at the statements in Nightforce's brief and then go back and read the transcripts, including the questions they ask and the questions around them, it will be very clear that Nightforce is very optimistic about the effect of the admissions that it feels it got on cross-examination. They are not so clear that that is necessarily the only conclusion the jury could reach from the testimony taken on cross.

An example of this is the "gotcha" argument that

Nightforce makes with respect to the shape of the spiral cam.

So Nightforce -- and this is on -- in Mr. Landvatter's

transcript I believe it's on page 68, but it's cited in

Nightforce's briefing. And they make this argument that

Mr. Landvatter misidentified which shape of the spiral cam,

and they put in their slide deck the two different spiral

cams, one of which goes around slightly more than 360 degrees

and one of which is slightly less.

If you actually read through the questioning that's in the record, Mr. Landvatter is asked, "Would you recognize those if you -- which one is which, which one was the first

one that you made out of the various different spiral cam shapes that you make?" And he said, no, wouldn't be able to do it.

And then they asked him, "Well, there's one that's more than 360 degrees." And ultimately all he says is that that's consistent with what he made, it might have been.

He's certainly not saying, "Yes, I" -- he's not presented with both of them. And upon hearing about the shape of one of them, he says, "That's consistent with what I made," not, "Yeah, that's definitely the first one that I made."

Nightforce is -- their conclusions about the effect of the testimony that they're getting and the extent of that testimony are not entirely consistent with the actual underlying testimony. So I encourage the Court to read it closely in going through those.

The next issue I'll turn to is the provisional priority. So starting first with Claims 6 and 16, Nightforce has not cited to any case in which an unclaimed element of the claim has to -- in which any Court has held that an unclaimed element of the claim must be disclosed in either the specification or in the provisional. Of course that cannot be the law.

If Mr. Otteman's patent were written so that only the asserted elements and no -- the claimed elements and nothing more could be part of the invention -- in other words, if it

was closed-ended claiming, then if Nightforce simply tacked lens caps, which are a non-claimed element, onto the end of its scopes, they would be non-infringing because it would include elements that are not permitted in the claimed design.

But, of course, that's not how patent law work.

Everyone writes their claims open ended so that the infringer can't just add one more feature and make them infringing. And the fact that — the patentee cannot be expected to imagine every feature that could possibly be added to its scopes and include every one of those — or any other patent — and include every one of those in the provisional and in the specification, because while they might be able to imagine that someone would put lens caps on a riflescope, it's possible that someone could put a competitor's logo or a new competitor's logo on the outside or, in a joke, might attach a pair of fuzzy dice to a riflescope for luck.

None of those things have to be disclosed in the specification. That is not what the written description requirement requires. And the *D Three* case that Nightforce is so eager to talk about is not different. Each of the claims at issue requires a washer. None of the claims of the '907 patent requires a bushing. Instead, they require a pin. And the provisional discloses a cam follower that includes a pin. The provisional need not disclose every other thing in addition to a pin that could possibly be part of a cam

follower.

There simply is no Federal Circuit or any other authority to the contrary. And, indeed, the *Lochner* case that we cited in my opening presentation expressly says the opposite: Unclaimed elements do not need to be disclosed.

Turning, then, to all of the other claims besides 6 and 16, provisional priority is a one-sided battle of the experts. In other words, the ultimate question is one of expert proof. How would a person of skill in the art understand what Mr. Otteman had or had not disclosed in his patent?

Now, Nightforce tries to say, and said standing here a relatively short time ago, that the disclosure requirement is one of, quote, express disclosure. That is not an accurate statement of the law. A provisional or a specification need not expressly disclose everything that falls within the scope of the claims. Rather, whether the disclosure is sufficient is judged from the perspective of a person skilled in the art and whether a person of skill in the art would understand that the patentee possessed what is claimed.

That is different from an express disclosure requirement. It is narrower than the standard for obviousness, but it is broader than express disclosure.

Mr. Byron's testimony is not framed in terms of obviousness.

It is framed in terms of the correct legal standard: what a

person of skill in the art would understand.

Now, counsel for Nightforce disagreed with Mr. Byron's assessment of what a person of skill in the art would understand. But we don't get to resolve a disagreement between Nightforce's counsel and an expert witness by granting summary judgment. That's what trials are for, if there are two experts that reach different conclusions.

Here the only expert is Mr. Byron because the opposing expert who offers an opposing viewpoint on this issue is not really a person of skill in the art in the field. Now, Nightforce says, well, really both experts are the same in terms of their skill, but that's actually not accurate. If you dig into it, the only thing that Mr. Brandenburg has done in the field is to design a single part for a friend, for the handhold on one gun, and to make some drawings of another gun in a computer.

That does not make him any different than the expert in *Sport Dimension* who had come up with some things that floated and had designed some products that floated and would have been qualified to testify whether the personal flotation device would float, but not whether it would work as a personal flotation device for what a person of skill in the art in the field of designing personal floatation devices would have known.

So Mr. Brandenburg is not a person of skill of the

relevant art; Mr. Byron is. And, therefore, Leupold's motion should be granted on this and Nightforce's denied. At a minimum, there is at least a battle of the experts; and Nightforce cannot win summary judgment on this issue.

Now, a couple of other things. The Court asked, when counsel for Nightforce was up here -- I believe the question was "Do I have to decide what 'groove' means to decide this dispute?"

And Leupold's answer to that is that the question of what the disclosure of a groove in the provisional means is not a question of law for the Court; it is a question of fact. Because the question is not, as a matter of law, what does "groove" mean? The question is what would a person of skill in the art have understood a groove to disclose? And the answer to that is found in the expert testimony, and in particular the expert testimony given by Mr. Byron.

Turning next to the issues of equitable estoppel and the certificate of correction, I'm going to take those out of order because Nightforce's discussion of equitable estoppel assumes that Nightforce is going to win on the certificate of correction issue, so I think it makes more sense to take them in the opposite order.

THE COURT: Can we take a break right at this time? We're getting onto a new topic.

I need a cup of coffee to recharge my brain, and then

I'll be better ready to listen to you for the next couple of hours. All right?

So let's take 15 minutes. We'll be back.

(A recess is then taken.)

MR. BRUNETTE: Your Honor, I think where we were, we were just finished with provisional priority and moving on to certificate of correction.

So on this issue, the key issue to look at is the Carotek case, discussed in my opening remarks. And an argument that we heard extensively from Nightforce is, well, this case is different. And Nightforce argues that this case is different because the error was Leupold's fault, that Leupold was the one who purportedly made a mistake in putting the claim of priority in an inventor declaration rather than in the application itself, and Leupold should have come clean on that at the time and failed to do so. That's their argument for why the 2003 certificate of correction is not effective.

That is the exact same argument that was made and that was only half successful in <code>Carotek</code>. So in <code>Carotek</code> they had exactly the same debate about exactly the same question. And the <code>Court</code> in <code>Carotek</code> ultimately agreed with the defendant that the error was the patentee's fault, but did not agree that that error or the fact that the error was the patentee's fault or the fact that the certificate of correction fixing

the error only put the claim of priority on the face of the patent and not in the first sentence of the specification, none of those things were sufficient to make the patent invalid on its face prior -- at the time.

So in *Carotek* there is no second certificate of correction that fixes the -- that fixes putting the priority claim into the first sentence of the specification in addition to on the face of the patent because the *Carotek* Court says, "That's okay. The regulations would require that, but the Patent Office only would have issued this certificate of correction if it thought that what you did was good enough."

And, in fact, the Federal Circuit tells us that the point here is the public notice function and "Looking at the face of the patent, this priority claim is really clear. It's maybe clearer here than if you had just complied with the statute, and that's good enough."

The point is the *Carotek* Court, one, did not care whose fault it was. The *Carotek* Court made a finding on that but it didn't matter to the outcome, and the same is true here.

And, two, the *Carotek* Court and the *Prism* Court both say that putting a priority claim via certificate of correction on the face of the patent is sufficient to make the patent valid because the PTO, in issuing the certificate, is exercising its discretion and holding that that is sufficient.

In contrast, there is no case holding that a certificate of correction that puts the priority claim only on the face of the patent is not sufficient. There's no case going the other way. The only case that Nightforce cites on this issue is the Worlds case, but that case is entirely factually different.

There the certificate of correction issues only after this issue was raised on summary judgment and is not effective not because it puts the claim of priority in the wrong place -- there was no claim of priority -- and then an untimely certificate of correction puts it in the right place. Here, the 2003 certificate of correction is timely and the place where it puts the provisional claim is good enough, according to the *Carotek* Court and the *Prism* Court.

This is important both to the certificate of correction issue, but also because Nightforce tries to take the certificate of correction issue and make it its new basis for its equitable estoppel argument because its old equitable estoppel argument wasn't working.

So turning to -- one last thing on certificate of correction. There is no case contrary to *Carotek*, holding that going to the PTO and seeking a certificate, saying that you think the error was the PTO's error in not having a priority claim at all, makes the resulting certificate invalid. Nightforce is making that argument, but they cite no

authority.

And Carotek is, again, contrary authority, where the patentee all along took the position that the error was the PTO's, the Court finds that the error was really the patentee's, but that doesn't matter. The certificate of correction issued under the assumption that it was the Patent and Trademark Office's error is still sufficient.

Now, turning to equitable estoppel, first on the issue of deception, Nightforce's argument seems to turn on three different kinds of deceptive conduct. They restate them in different ways to try to make more bullets on their slides, but they all come down to either silence, the absence of the patent marking, or certificates of correction issues.

So going through those three, first as to silence, the *Hemstreet* case from the Federal Circuit is clear that where the ball is in the patentee's court, silence is not going to be enough, particularly where the opening communications are about licensing, not an express threat to sue. That's exactly the facts we have here.

Nightforce talks about the Akeso case out of the Central District of California, but the reasoning of that case suffers from a fundamental problem in that much like many of Nightforce's arguments here, it is merging the doctrine of laches into the doctrine of equitable estoppel.

So Akeso draws on this idea from back when there was

a laches defense that was effective, that there is a six-year presumption of laches. All of that is gone, but Akeso resurrects that six-year presumption of laches and sticks it into the "silence" portion of equitable estoppel, saying that once you go over six years, there's sort of a presumption that you must be doing something. There is no support in Federal Circuit law for that reasoning on equitable estoppel. It all comes out of laches, and that's not appropriate. Laches is gone. The Supreme Court struck it down as a defense to patent damages actions.

Second, patent marking. So Nightforce makes an argument for the first time in either its opposition or its reply brief that, well, the deceptive conduct here is that Leupold didn't go out and mark its patent numbers on its products. The whole reason that marking comes up on this case is because they asked a series of discovery question about marking, because it's relevant to damages limitations. But there are two problems.

One, there is no evidence in the record that

Nightforce knew that Leupold was not marking at the relevant

time. They're drawing on interrogatory responses during this

litigation about whether marking occurred. There is no

showing that Nightforce knew or relied upon a lack of marking

at the relevant time.

Second, even if Nightforce had known about the

relevant -- the lack of marking, there is a statutory penalty for failure to mark. A patentee can make a choice not to mark; and the penalty that it takes is the penalty provided by statute, which is a limitation on its damages. It would be inappropriate to take that choice and turn it around and use it to entirely cut off a patentee's damages.

In fact, this would be like exactly the problem that happened under the doctrine of laches. There is a statutory limitation on damages periods, and therefore delay causes a patentee to suffer the statutory consequence -- limitation on damages -- not the broader consequence of barring its claim entirely.

Third, the certificate of correction issue.

Nightforce's argument under equitable estoppel assumes that

Nightforce wins on the certificate of correction issue; and,

therefore, that from 2003 until 2016 the '907 patent was

invalid on its face. That is wrong for all the reasons I just

discussed. For all the reasons set out in Carotek, it is

entirely appropriate that Leupold handled the situation

exactly as it did. Leupold corrected any error in the '907

patent in 2003, and it has been valid at all times since.

Now, Nightforce makes the further argument that it purportedly gave some kind of warning to Leupold in 2006 that its patent was invalid and that Leupold needed to deal with this. And then Nightforce draws out of that an argument that

Leupold, having that warning, sat on its rights for 10 years and did nothing.

That sounds compelling, except that it is not consistent with the factual record. Nightforce did not say in 2006, "Guys, we've looked at your 2003 certificate of correction and we think it puts the claim of priority in the wrong place." Instead, what Nightforce said in 2006 is "Your patent, on its face, does not include a claim of priority at all; and, therefore, we think that things that are in between 1999 and 2000 are prior art and you have a real problem."

Leupold wrote back and said, "Hey, guys, there's a 2003 certificate of correction. So that's not shown on the face of the patent, but we really do -- we've corrected that, and we are claiming priority back to the 1999 provisional."

What did Nightforce say in response? Absolutely nothing. That's the e-mail that Nightforce chose as the time to let the conversation drop in 2006 and refused to respond even when Leupold's counsel called and left a message with the secretary, asking for a response. No response.

So Nightforce can't stand up here and say Leupold was warned. Instead, the only evidence of when Leupold found out about the argument Nightforce is now making, that the 2003 certificate of correction purportedly put the claim of priority in the wrong place, is in 2016. And we know that when Leupold got notice that Nightforce was making that

argument, Leupold went and got another certificate of correction just as extra insurance, just to make sure.

And being aware of cases like Worlds that say that it's critical to have such a certificate of correction in place before filing suit, Leupold decided to wait just a few months more before filing suit on the '907 patent, as those cases instruct.

Nothing about this was in any way deceptive. And, indeed, that's exactly what Klaus Johnson said. There was no carve-out in the designation of Klaus Johnson as Nightforce's designee, saying, "He's designated for everything except this defense." He was designated for this defense.

And there was nothing tricky about the questions he was asked. He was asked very clearly, "Was there anything about Leupold's conduct with respect to patents that you thought was misleading?" He was given every opportunity, if he thought that Leupold had done something misleading, to say so. And, indeed, he's never come in and changed his testimony on that. There's no correcting declaration saying, "Oh, I was mistaken. I was thinking about the Windauer patents." That's simply not in the record.

But, in any event, even if there had been deceptive conduct, Nightforce cannot tie any reliance both to that deceptive conduct and to resulting prejudice, because that's the kind of nexus that it needs. It needs to have something

that was misleading; reliance, not just in general but on the thing that was misleading; and resulting prejudice, not just in general but because of its reliance on the misleading thing.

It is absolutely clear from the record what Ray
Dennis was relying on, and that is his conclusion that the
'907 patent would ultimately be found invalid. And it is also
absolutely clear that nothing Leupold said in 2007, 2008, or
any time between then and 2016 would have caused Ray Dennis to
tell Nightforce -- and he was the ultimate decision-maker -to change its products.

In fact, Mr. Dennis was so clear about this that he even said so in his summary judgment declaration in this case, and that's the slide we have up here. This is paragraph 17 of Mr. Dennis's summary judgment declaration, where he says the only circumstance under which he would have changed his product. And that was if Leupold had "brought suit in 2006 or shortly thereafter" -- and this is the critical part, not only that Leupold had to sue -- "and prevailed or showed signs of prevailing."

So even if Leupold had very clearly told Nightforce in 2006, "We're going to sue you later, just so you know. Do what you need to do," even if Leupold had actually sued Nightforce in 2006, even if Leupold had proceeded with that lawsuit but not yet showed signs of prevailing, under all of

those circumstances, Nightforce would not have changed its products.

The prejudice that Nightforce is claiming is that it made an investment in its products after it was purportedly deceived. That prejudice is not caused by any reliance on any misleading conduct. That is the cost of Mr. Dennis's business judgment, that he was really sure he was going to win on the '907 patent. So maybe it turns out that he's right and maybe it turns out that he's wrong, but he doesn't get to use the fact that he made that gamble to preclude Leupold from bringing its claim.

Finally, on the issue of prejudice, Nightforce makes an argument that Schmidt & Bender purportedly destroyed some documents at some point. But there's nothing in the record about that. That's merely argument that came out during the argument today. There's no evidence on that. So that can't be the prejudice. And, in any event, it's almost impossible to imagine how that relates in any way to any reliance that Mr. Dennis had.

Once again, what Nightforce is really doing is trying to turn equitable estoppel back into laches. If document destruction were a kind of prejudice, it would be a prejudice that results not from reliance, but from delay. And delay alone is insufficient to establish equitable estoppel.

Proceeding briefly to the two remaining arguments, one of them is about Altenheiner, the binoculars. Nightforce makes the argument that Mr. -- that binoculars are a kind of telescopic rifle sight, citing some testimony from Mr. Byron. Nightforce cites that testimony entirely out of context.

What Mr. Byron was talking about was an aiming device for counter-sniper fire. So this is a product that he developed for the military that was ultimately never fielded, but it uses binocular machine vision. So, in other words, there are multiple cameras mounted on posts some distance apart from each other, and they see the flash when a sniper's muzzle goes off. And by triangulating that flash between cameras at different points -- in other words, with binocular machine vision -- it can pinpoint automatically, via computer, without human intervention, both which direction the sniper round is coming from and how far away it is, using trigonometry, based on having the binoculars some distance apart.

And the way the system works is it then sounds an alarm so that people near where the shot is coming in have a second or two to duck, because in long-range sniper fire there actually is some period of time between when the muzzle flash happens and when the bullet hits, and it automatically directs counter-sniper fire from some kind of automated battery that sends a mortar or an artillery round or something of that kind

back.

These binoculars are not telescopic rifle sights.

They are an optical aiming system in the sense that they assist in aiming another device, but it's via a computer and entirely different. Nothing about that experience suggests that the ordinary field binoculars described in Altenheiner are a telescopic rifle sight. They plainly are not.

And, in any event, the question on anticipation is not what Mr. Byron thinks about the binoculars. It is what's disclosed in the Altenheiner reference on its face. And on the four corners of the Altenheiner reference, there is nothing in there that suggests a firearm or a rifle of any kind. Altenheiner, therefore, cannot be anticipating.

As to obviousness, it's a repeat of the same discussion about whether Mr. Brandenburg is or is not a qualified expert, which is ripe for decision on the briefing.

And I do want to pause for just a moment to go back. Nightforce made several mentions to Leupold's opening brief as being cursory in dealing with the issues -- and there are many of them -- only in 35 pages. And I just wanted to make sure the Court is clear -- I think we've said this in a footnote in our brief -- as to why we only filed one motion as opposed to multiple motions as Nightforce did, and that's because we were warned in a prior case to keep to one.

THE COURT: Because I said so.

MR. BRUNETTE: That is precisely why, Your Honor. We listened.

Finally, Your Honor, getting to the Schmidt & Bender scope, the critical issue here, one of them is the hearsay documents. There is absolutely nothing to make Hans Bender's statements about what he purportedly thought Schmidt & Bender had done in 1997 as of 2004 or 2006 an admission of Leupold.

Indeed, the only question that Leupold's designee, Mr. Worth, was asked is whether he thought that Mr. Bender was a trustworthy person; and he said, in general, yes. But there's no showing that Mr. Worth knew anything about these e-mails or that Leupold had any reason to know whether anything in these e-mails was or was not true. That simply is not an appropriate basis for an 801 hearsay exception nor has there been any briefing on this issue. Nightforce could have taken the opportunity to brief this issue and has not done that.

Nightforce also makes the argument, well, you can tie together the advertisements that talk about a scope with a third turret on it with the photos of the teardown, whenever that happened, to reach the conclusion that whatever scope was in there must be the same scope because it has the same name. And they say, well, it's very expressly called out as the same name.

I just want to make sure it's clear in the record

what that name is. The scope that was torn down is a Long Range scope. That's the name that was called out. And that does not seem to be sufficiently specific to say, well, the Long Range scope that was advertised in 1997 and the Long Range scope that was torn down at some unknown later date --we don't know when -- must have been the same because they both say "Long Range" on them and they happen to be the same objective size. There is simply no evidence as to what, if anything, Schmidt & Bender was actually selling in the United States in 1997.

That's all I have at this point, Your Honor.

THE COURT: Thank you.

Anything else?

MR. CASIMIR: Just a brief response on a few of those points.

THE COURT: Sure.

MR. CASIMIR: And I'll just, since it's fresh in our minds, on the point of the Long Range scope, "Long Range" was a Schmidt & Bender brand name. It wasn't referring to a scope that was useful at long ranges. It was also that, but it's a brand name.

And then also just a quick note on the hundreds of issues in one motion, the issue isn't so much that there was one motion. The issue is they moved for every -- they moved on every issue in the case in that one motion, including for

validity and infringement on claims they've since withdrawn.

The issue is they -- the overwhelming onslaught of every issue, many of which are not possibly suitable for summary judgment.

But let's get into some of the specifics here. So let's start, very quickly, on the infringement issue.

THE COURT: Can I interrupt you for a second?

MR. CASIMIR: Sure.

THE COURT: On the first point you made regarding

Long Range, is that something that is ascertainable from the

evidence that's before this Court?

MR. CASIMIR: It is. The catalog from 1997 lists the two brand name scopes that added the side parallax. One was called a Varmint. One was called the Long Range.

THE COURT: Okay. Thank you.

MR. CASIMIR: All right. Very quickly on the infringement, the key issue here is we have an undeveloped record and arguments from Leupold based on undeveloped claim construction positions.

We heard an argument about whether the actuator needs to be fully inside or outside of the scope, but the issue here is in the claimed invention the actuator and the cam are part of the knob. In the accused infringing product the alleged actuator is a different component inside the scope; it's not part of the knob.

And it gets into layers of claim construction in this undeveloped record we haven't gotten to, but just as an example, on slide 73 on the screen here is a description from the specification of the '907, explaining what the invention is, not what are embodiments of the invention, but what the invention is. And it was the idea of having the cam and the actuator together in the knob positioned above the housing.

So it says, from the specification here, "The focus control knob of the present invention" -- not of the embodiments, but of the invention -- "includes a cam hub mounted to the housing for rotation about an axis of rotation. The cam hub includes a drive face positioned facing the interior of the housing and a spiral cam track formed in the drive face around the axis of rotation and spiraling outwardly from the axis of rotation. An actuator slide positioned between the cam hub and the housing of the sight includes a cam follower slidably engaged with the spiral cam track."

It then goes on to talk about particular embodiments. But the description of what the focus control knob is, it includes those two components together and specifies that the actuator is positioned between the cam hub and the housing. And that's consistent with the claim language, where the actuator is part of the knob.

In the accused infringing products, it's not. It's this free-floating component on the inside that just the tip

of the bushing can interact with the under portion of the knob, but it's not part of the knob.

Again, that's just an example of where, you know, there's layers of record that we would have to go through to do claim construction, which in their cursory summary judgment motion Leupold did not do.

Along those lines, there's also two experts with opposing opinions on these points, not all of which have been resolved in the record here.

Turning to the date of invention, keeping in mind that Nightforce's position is there's no evidence of reduction to practice, we heard Leupold argue and give some quotes about some testing that might have been done. But the problem is they have no evidence of when that testing got done, and that's the problem in meeting their burden of proof.

Everything from the 1995-'96 date is tied to those invoices, which were first used to pollute Otteman's declaration, which were then shown to Landvatter. There's no evidence that any testing that might have been done was done prior to the German publication, and none of the quotes that you just saw put a date on it.

The burden of production on this issue was and is at all times Leupold's to show earlier invention. So they also raise the question about why, in their opening motion on validity, they didn't raise these issues. But they've had

the burden. So when they filed for a motion on validity of the '907, and they were aware of the German publication being the key prior art, they needed to show in that opening motion that there was reduction to practice, that a prototype was made in the relevant time period, and that it worked for its intended purpose in the relevant time period. They failed to do that.

Regarding testing, we heard a discussion of some of the case law. I encourage the Court to review the various cites. It's very clear riflescopes require testing, in view of all of the case law. How else do we know that? Leupold's expert, Byron, told us that. And Leupold's position across the board, before summary judgment, was that testing was required for the design of the '907 adjustment knob.

Last point on the earlier invention: Once again

Leupold has pointed to conception, alleged conception evidence
to suggest that a prototype was made and that it worked for
its intended purposes. The drawings they use for conception
don't show all the parts. They're not a prototype. They
don't show a picture of the prototype. They don't tell us
when or if a prototype was made. Mr. Landvatter never saw a
prototype. There's just no evidence that a prototype was made
or tested prior to the German publication.

Turning quickly to the estoppel issue, just a correction on the interpretation of the Central District of

California case. Mr. Brunette argued that it maybe shouldn't be followed as a decision because it imports the concepts of laches into its arguments and its holdings, and it's just simply not the case.

The Supreme Court got rid of laches because it was unnecessary, because the patent statute says you can only go back six years for damages. The Central District of California case is addressing that issue, that after you wait more than six years, the silence becomes not just regular misleading silence, but inexplicable misleading silence because you're giving up damages.

Absent the laches doctrine, that's also true.

There's a six-year window of sliding damages. If you wait seven years to sue, you've given up a year of damages under the patent statute, not just laches.

That's all I have.

THE COURT: Thank you.

Anything else?

MR. BRUNETTE: Your Honor --

MR. CASIMIR: Oh, I'm sorry. Mr. Davis may have one quick point on the issues he raises.

THE COURT: Mr. Davis, I don't want to take away your moment in the sun.

MR. DAVIS: Thank you, Your Honor.

So just quickly responding to some of the points made

on the priority date motion, the unclaimed element argument that we keep hearing is simply inapt here, and especially the lens cap analogy. We're not talking here about adding an accessory to a scope having the spiral cam mechanism or a groove or a ridge or a rail. What we're talking about here is the claimed elements in the '907 patent of a cam track and a cam follower.

And the fact is that Leupold claimed in 2000 iterations of cam tracks and cam followers that were not disclosed in 1999. And I provided examples on this slide 54 for the Court, and there's never been an argument that any of these three examples is not within the scope of all of the asserted claims, including Claims 6 and 16, nor is there any express disclosure of such embodiments, including the later disclosed ridge or rail, in the 1999 application. Leupold has never seriously disputed there's no express disclosure of anything but the recessed groove in the 1999 application.

Then the issue becomes whether somehow a person of skill in the art, reading the 1999 application, would be able to see in that application what you and I cannot or something that's not there. And the answer to that could vary based on the disclosure and the art we're talking about here.

But this is not a battle of the experts as counsel argued. In support of Nightforce's summary judgment motion on this issue, we cited to no expert testimony from Nightforce's

1 experts because this is a burden of production on Leupold. 2 So the only issue in this motion is Byron's 3 testimony, and there is nothing in Byron's testimony to support that Mr. Otteman possessed a ridge or rail or any 4 5 other embodiment of a cam in 1999 that can be discerned by 6 viewing the 1999 application. Byron's report is extremely 7 conclusory on this. 8 If I might switch to the document camera --9 (Pause) It's displaying on the camera. 10 (Off-the-record discussion between counsel and the 11 clerk.) 12 MR. DAVIS: I have a copy I could hand up, Your 13 Honor, if that would --14 THE COURT: Sure. 15 We'll blame it on the government shutdown. 16 (There is a brief pause in the proceedings.) There is still money left for the 17 MR. DAVIS: 18 document camera electricity after all, at least for a week 19 maybe. 20 So I mentioned earlier in the argument Byron's report 21 22 substance of it is highlighted here in its entirety from

on this issue of the priority of the 1999 application, and the paragraph 332 of his declaration. The beginning portion of this merely recites what Mr. Brandenburg was arguing.

23

24

25

And then he goes on in this highlighted portion, at

ECF 83-2 at 149, to explain why he thinks that -- his opinion on the priority issue boils down to nothing more than a person of skill in the art would recognize that a spiral cam track that is a groove and a cam follower that is a rail is merely the inverse of a track that is a ridge or rail with a follower such as a fork that fits around the rail or ridge.

So whether a person would readily recognize that it's the inverse is exactly the obviousness standard I was alluding to earlier. He's not referring to the 1999 application and suggesting that there's any reason that a person reading that 1999 application would believe not that it's obvious to do it a different way, but that this inventor, Otteman, was in possession of that alternative.

There's no tie in this report to the document in the 1999 application. And why a person looking at that document would think that Mr. Otteman was in possession of the ridge or rail embodiment when it's not mentioned anywhere in the 1999 application -- recognizing that a ridge is the inverse of a groove is an obvious observation, but that's not the test under *TurboCare* and other Federal Circuit cases.

So the 1999 application is simply not a disclosure of a ridge or a rail that was expressly disclosed in 2000.

Also, Mr. Byron's report here, which he swore to for the purpose of summary judgment, is simply too conclusory and entitled to no weight for summary judgment purposes. I

mentioned the Arthur Collins case earlier, and the D Three case that's come up a lot today also goes directly to this issue as well.

These conclusory assertions by an expert that the expert sees what we cannot in the four corners of a document, without any supporting analysis, effectively what the *D Three* Court says is there's no answer to the question "Why?" Why would a person reading the 1999 application think that this inventor was in possession of something that's not within the four corners of the document? It's just a conclusion he states without any supporting reasoning. And under Federal Circuit summary judgment law, it's entitled to no real weight.

And then I think there was also a question earlier about claim construction and how that interplays with the disclosure of the 1999 application. It's not for the experts, Your Honor, because this idea of a "groove" is in fact a claim term, and it's a term that happens to also appear in the 1999 application. But interpreting that term in the claims is something Your Honor has already done for the purposes of this case. And the Court's construction inherently requires that a groove, ridge, and rail be separate and different things and that -- and there's no reason a different interpretation could be applied to the 1999 application. The Court construed a cam track as follows, quote: a groove, ridge, or a rail that is curved along its length, for engaging a cam follower, at ECF

69, page 21.

So the idea that a groove could inherently disclose or include a ridge or a rail in 1999, in that application, has no support and would be contradictory to the Court's -- the inherent impact of the Court's construction.

So even if we credit Byron's explanation here on the document camera that -- or his opinion that the idea of a cam being a ridge or a rail as the inverse and easily recognized as the inverse of a groove, that doesn't get them there for purposes of summary judgment. There's no explanation of why, and certainly no explanation of why a person of skill in the art could read the 1999 application and see something that's not within the four corners of the document, which is the test.

In the Ariad en banc decision from the Federal Circuit, the test is an objective inquiry into the four corners of the 1999 application, Ariad, 598 F.3d at 1531. And there is simply no basis to conclude that an objective reading of the 1999 application would disclose to a person of skill in the art or anyone else a cam that is not a groove.

And that's where their problem came in, because we're not talking about unclaimed elements. What we're talking about is a claimed element of a cam track and the claimed element of a cam follower. And there's been no real debate that cam tracks and cam followers that were not disclosed in

1999 are within the scope of the later claims in 2000, so there is no priority back to the 2000 application.

And lacking priority, there is no debate between the parties that without that priority claim being effective, giving them a filing date of 1999, the '907 patent and all of the asserted claims within it are invalid.

Any questions about this segment, Your Honor?

THE COURT: No. Thank you.

MR. DAVIS: Thank you.

THE COURT: Anything else?

MR. BRUNETTE: Your Honor, if I may respond very briefly.

THE COURT: Sure.

MR. BRUNETTE: I can just stand up and do it from here and save a second.

THE COURT: Whatever you like.

MR. BRUNETTE: So, first, with respect to the priority issue, a critical distinction is between the claim language that was construed, which says a cam track is a groove, ridge, or rail, and the fanciful embodiments that counsel has come up with that are up on the screen, which are a groove and a ridge, which would not fall within the claim language.

In other words, an additional element, whether that additional element is a second version of an existing element,

such as a second scope housing, a second groove, or a pair of fuzzy dice attached to the scope, whatever that additional element is, it is not required to be described within the specification. That's what the Federal Circuit said in Lochner, and there is no contrary authority.

Second, as to the Byron declaration, Byron asserts and applies the correct legal standard, and counsel simply disagrees with his conclusion. That is not a sufficient basis to enter summary judgment.

In addition, Nightforce's own expert,

Mr. Brandenburg, admitted that cams have been known and
applied in a variety of different ways for thousands of years,
entirely consistent with Mr. Byron's testimony that a person
of skill in the art would recognize that Mr. Otteman possessed
both the groove and the ridge or rail embodiment.

Finally, Nightforce ignores the authority contrary to its position, such as the *Trading Tech.* or *Hologic* cases, which make clear that a single example can be sufficient to disclose an entire genus, such as the genus of single-click user input devices discussed in *Trading Technologies*. Thus, the single example of a groove is sufficient to disclose the genus of cam followers that also include ridges or rails.

Turning to infringement, counsel makes an argument that actuator is an issue that needs further development for claim construction before summary judgment can be decided.

However, that ignores that this Court has already construed the meaning of "actuator" in the '907 patent.

In any event, the specification example called out by Nightforce is not a limitation of the claims, and the claims are written more broadly than that example discussed in the specification. That is normal, and there is nothing wrong with that.

Finally, as to an invention and reduction to practice, under a rule of reason, there is ample evidence of when the prototype scope was tested. Mr. Landvatter testified that it was tested soon after his delivery of the prototype.

Mr. Landvatter also examined the financial documents and, after looking at them, agreed that they definitely related -- at least some of them related to the spiral cam product. And the 1995 undisputed electronic documents showing that Mr. Otteman created the drawings that were given to Mr. Landvatter in 1995 and that they were preserved unchanged a year later, in 1996, are all circumstantial evidence that, under a rule of reason, more than adequately corroborate the date of the testing.

Thank you, Your Honor.

THE COURT: Thank you.

Shall we move to the next topic?

MR. PARK: Sounds good, Your Honor. Thank you.

MR. CASIMIR: Now, we might want to have a discussion

about process.

How much more time do we have today?

THE COURT: My brain is probably good for another hour, a little bit more.

MR. CASIMIR: Okay. So the next one we had queued up was the set of five locking patents. It is impossible to get through those within an hour.

There are two patents, I think, in the case we could get through within an hour. One is the flip cap patent, which I'm not recommending we do. The damages in that one are a triviality. I believe their damages expert said it's worth \$80,000. Ours said that it's worth \$5,000. I don't know that we should prioritize that.

The other is the '067 patent. The issues are pretty simple. I think we could complete that within an hour. The other ones, we don't have a prayer.

THE COURT: Oh, okay.

MR. PARK: It seems like the five locking turret knob patents all deal with similar mechanical concepts. We have the three Windauer patents, and then we have the pinch turn and the ZeroLock.

We also have -- I agree that the flip-up lens cap probably does not need to be argued. It's also the subject of ongoing settlement discussions, which we hope will be completed soon. And then there is the government contract

defense that Nightforce has raised.

So depending on the Court's preference and the time we have, the government contract defense I think we could certainly get through today, both sides' arguments. I agree with Mr. Casimir that in terms of the locking turret knob patents, though, it would be aggressive, even if we took a few of them and tried to cleave those arguments.

THE COURT: You know more about how long everything is going to take than I do. You have an hour. It's your nickel. You get to spend it however you want.

MR. PARK: And, Your Honor, I know we talked about timing at the beginning of today's session. After the hour, both parties would understand that we're done with the argument.

THE COURT: I've got more time. If you need more time to finish up, I can give you another day. I had a couple of trials that went away, so that freed up some time. I think I have time in February to finish up. If you want, I can give you a date. You could look at your calendars right now.

That's what I like about federal court. Things open up.

Let's see. I think in the middle of February we had time.

THE CLERK: The 12th or 13th would be probably best. (The Court and the clerk confer off the record.)

```
1
              THE COURT: So I have time on -- it's a Tuesday and a
 2
    Wednesday, the 12th and 13 of February.
 3
              MR. PARK:
                         The 13th would work for us.
 4
              Would that work for you?
 5
              MR. CASIMIR:
                            The 13th also works for me, yes.
 6
              MR. DAVIS:
                         Yes.
 7
              THE COURT: So we'll schedule you at 9:00. I have
 8
    the whole day. I hope we'll be finished in less than the
 9
    whole day.
10
              MR. PARK:
                         Yes.
11
              THE COURT: If not, that's fine. We'll give you the
12
    day.
13
                         Okay. Thank you, Your Honor.
              MR. PARK:
14
              For purposes of today, shall we make progress on the
15
    government contract defense?
16
                           That's what we're thinking as well.
              MR. CASIMIR:
17
    That can definitely be done in the time period, and then it
18
    keeps related subject matter together.
19
              MR. PARK: Sounds good.
20
              THE COURT: Let's do that, then.
              By the way, while you're walking up there, did you
21
22
    all get a time with Judge Beckerman yet?
23
              MR. PARK:
                         Not yet, Your Honor. We're working on it.
24
              THE COURT:
                         Okay.
25
                         Mr. Brunette, if I could have you put up
```

docket 137 on the projector, please.

MR. BRUNETTE: It should be up, if you hit "Attorney 2."

MR. PARK: Thank you.

And if you could display, starting with page 3, that would be great.

For the record, I'm Brian Park on behalf of the plaintiff, Leupold & Stevens.

Your Honor, with respect to the government contractor defense that Nightforce has asserted under 28 USC Section 1498, with the exception of fewer than a handful of sales, Nightforce asserts that its sales to the U.S. government enjoy a broad blanket immunity from patent infringement based on this concept of implied consent, and that's to be contrasted with the concept of express authorization and consent where a specific contract provision incorporates a provision of the FAR, the Federal Acquisition Regulations, specifically, for example, FAR clause 52.227-1. Where that clause is missing, the law requires that there be a sufficient showing of implied or implicit consent.

However, on their face, the vast majority of orders for which Nightforce claims immunity do not enjoy authorization and consent under the transaction's own terms. And in the Ferris declaration we have here on the projector, we have undertaken to go through a number of the transactions

for which Nightforce claims this immunity and explain why the authorization and consent is lacking; why the FAR clause is lacking; or, if there is a FAR clause that's invoked, why the thresholds required under the contract's own terms or the purchase order terms or the FAR clause terms aren't satisfied.

Now, in support of Nightforce's argument that FAR clause 52.227-1 is optional under the so-called simplified acquisition procedures that are used for many of Nightforce's government sales, the parties dispute legally what the term "optional" means in this context. "Optional" does not mean automatically immune or automatically applicable. It just means it can be included or not included. It doesn't have to be included. But, of course, if the authorization and consent provision is not included, then it's not applicable.

Nightforce also argues in its summary judgment reply brief on this issue that it would be somehow unfair for the government on the one hand to say that the authorization and consent clause is optional, but then on the other hand for the Court to find that such sales are not covered by this concept of implied authorization and consent under Section 1498(a).

But there's nothing unfair about that at all. Why? First, not every sale to the U.S. government is intended to be immune from liability. And the case law that both sides have cited make this abundantly clear. It's not an automatic immunity.

Two, there is no immunity if there are non-infringing alternatives to the patented technology. If the contract does not require that there be patent infringement, there's no need for immunity in the first place. And that's another reason why the FAR clause need not be included in the terms of the contract.

Now, authorization and consent can be implied, that's true. But the law requires more of a showing than merely a contract formation. It's not automatic. To meet that burden, Nightforce has to make the requisite showing, because the law has indicated that sovereign immunity, of course, is not to be taken lightly or to be liberally applied. The law states that waivers of sovereign immunity are actually to be strictly construed.

And this is discussed in the Irwin v. Department of Veteran Affairs case cited in the briefing, 498 U.S. 89, page 94, from 1990. The law states that authorization and consent requires, quote, explicit acts or extrinsic evidence sufficient to prove the government's intention to accept liability for a specific act of infringement, end quote. This is from the Larson v. United States case, 26 Cl. Ct. 365, at pages 369 to 370, from 1992.

That makes sense. Otherwise, contractors would always enjoy blanket immunity on all deals with the government, and the U.S. government could be sued on any and

every commercial transaction it engages in. Plainly that's not the law and plainly that's not the government's intent.

So how does one tell the difference? If there is no applicable FAR clause that's built into or incorporated into the contract, how does one determine if there is authorization and consent or not? And that's exactly how the issue is joined by virtue of the three-prong test for implied authorization and consent, and that test is set forth in the Larson case from the Court of Federal Claims -- or, excuse me, the U.S. Claims Court.

Now, it's noteworthy that the U.S. Claims Court, which is now called the U.S. Court of Federal Claims, is the court with jurisdiction over lawsuits against the U.S. government for money damages, including for patent infringement. That specific court in D.C. deals with sovereign immunity issues all the time. It deals with authorization and consent issues all the time.

And under the *Larson* jurisprudence, the three-prong test for implied authorization and consent requires, first, that the government expressly contracted for work to meet certain specifications; second, that the specifications cannot be met without infringing the patent at issue; third, that the government had some knowledge of the patent infringement.

Again, conceptually this makes sense because if the government is going to be held to this standard of implied

authorization and consent, it needs to know what it's authorizing and consenting to, specifically some form of patent infringement.

Nightforce's attempt to distinguish the government contract cases cited in the briefing rings hollow. Under the Patent Act, a patent claim is infringed by any number of activities. It can be by making, using, selling, offering to sell, or importing an infringing device. Whether the infringer is contracting with the government to make and sell infringing products or to use the patented invention and infringe in that way is irrelevant. Instead, the key point is whether a private party is doing something by contracting with the government to do some act that infringes a patent; and, if so, is the three-part test that we just outlined satisfied?

To support ignoring the three-part test that -- thank you. To support disregarding the three-part test from Larson for implied authorization and consent, Nightforce relies on a number of unpublished decisions, decisions like the Nasaka case from the Eastern District of Virginia, 1994, or the Racing Optics case from the Middle District of North Carolina, 2017.

Those cases highlighted by Nightforce in its briefing are distinguishable in a couple of respects. One key point is that the patentees in those cases sold the patent-infringing device only to the government and exclusively to the

government. The government was the only customer for the infringing device, and it was on an exclusive basis. And so there's logically a natural inference that by requesting that device and having it be sole sourced to the government and only the government, that authorization and consent can be implied.

And, by the way, another distinction from the Nasaka case is that the U.S. government's authorization and consent was not really in question because over the course of the dispute, a patent attorney working on behalf of the Pentagon reached out to the patent owner and said, "Hey, we see there's a patent infringement dispute here. If you want to do something about it, you need to sue in the Court of Federal Claims or initiate some sort of administrative action with respect to your patent rights."

So there is no question that the government knew about the patent infringement, wanted the patent infringement, and appeared to put the patent owner on notice that if the patent owner wanted a remedy, they needed to go after the government, a clear case of implied authorization and consent.

That, though, is not the case here. Here Nightforce sells the accused infringing products to many different customers, to the U.S. military and also to the private sector, through the commercial markets.

Further, there are eight separate patents-in-suit in

this case. There's been no showing from Nightforce that the government specifically wanted riflescopes that had all of the patented features. And those patented features, as we've discussed over the course of this case, deal with many different aspects of the riflescope technology.

Nightforce has also not shown that the government expressly requested the infringing product. That's prong 1 from the three-part test I discussed.

Nightforce's government contracts are not in evidence. We have a bunch of purchase orders from its prime contractors for which it subs. And to the extent they don't exist, they can't be used to show that the government authorized implicitly some form of authorization and consent.

At most, what Nightforce has attempted to show is that the prime contractor, the contractor that formed the relationship with the government for whom Nightforce then subs, that the prime contractor issued a purchase order to Nightforce saying, "We would like you to supply us, the prime contractor, with a certain product that we can then use to fulfill the government's requirements." But, of course, a prime contractor can't implicitly authorize and consent to patent infringement on behalf of the government. Only the government can do that because it's a form of sovereign immunity.

In terms of prong No. 2 from the three-part test,

Nightforce also has not shown that the government requirements can't be met without infringing Leupold's patents-in-suit. In fact, there are many available technologies out there. And absent such a showing, there is no implied authorization and consent.

In terms of prong No. 3, Nightforce also has not shown that the government has any knowledge of the patent infringement, much less of this patent litigation. We don't know if Nightforce has informed the U.S. government of this patent dispute. And there's no evidence in the record that the government has known about it. Certainly they've not appeared and attempted to intervene or to notify Leupold, as in the Nasaka case, that there was a remedy elsewhere.

Absent those showings, there's a gaping hole in Nightforce's invocation of the government contractor defense. If there are situations where in fact there is express authorization and consent and all the criteria for that express authorization and consent are satisfied, then fine. And, as I mentioned at the beginning of my remarks, it appears there are two recent examples where that appears to be the case, and that's fine.

For the vast majority of the transactions here for which Nightforce is trying to invoke this shield, there's no such showing. There's no express FAR clause that's written into the contract. In fact, there's no contract that we have

seen that's in evidence. And there's no groundwork, no legal framework that's supported by competent evidence to apply implied authorization and consent.

And so for those reasons, summary judgment should be granted for Leupold on that defense, at least with respect to the contracts, the transactions for which Nightforce claims it's implied.

If there are no further questions or if there are no questions, Your Honor, I think I'll pass the mic to Nightforce's counsel. And then I'd like to reserve some rebuttal.

THE COURT: Fine.

MR. PARK: Thank you.

MR. CASIMIR: Mr. Davis will be making the argument, and I've got copies of his slides (handing).

THE COURT: Thank you.

MR. DAVIS: Your Honor, just to be clear for the record, this is an issue on which both parties have moved. Nightforce has moved for summary judgment that its government sales are immune, pursuant to Section 1498(a); and Leupold has moved against that defense on the theory that there's no evidence from which a reasonable jury could conclude the defense applies.

So for context, we ought to take a step back here and think about the argument that Leupold is making here, which is

surprising, given that they're a government contractor supplying the military as well.

So Nightforce's sales are exactly the kind of sales that this defense was meant to apply to. The genesis of Section 1498(a) was the 1918 Act passed as a result of the Secretary of the Navy complaining that there was a concern patent infringement allegations could prevent the Navy from getting the materials and supplies it needed, and they did not want threats of patent infringement to get in the way of national defense.

That Act was very similar to the current iteration in 28 USC Section 1498(a), and these military sales are exactly what should be protected by it. If the Navy Seals and other special operations units who use Nightforce products specifically want and think that the Nightforce product is one they need, then 28 USC 1498(a) ought to make sure they get it without Nightforce having any concern about a patent infringement suit from Leupold, who no doubt would have liked to have made that same sale, but lost it to the superior Nightforce product.

It would be very scary to interpret the law as
Leupold is advocating it, because it would essentially be an
impediment to the implementation of 1498 and its predecessor,
the 1918 Act, as Congress intended. There is no case that
Leupold has cited that denies the defense of supplying

critical military and war supplies to the U.S. government and its military branches or its law enforcement, and those are exactly the sales that are at the core of Nightforce's motion,

There's a mention of express consent, and I guess there's no debate that those contracts that have the express consent clause are covered, and sales pursuant to those would be covered by the defense.

The big issue is implied consent. And the reason that's a big issue is Leupold complains that there's no formal contract to support those sales, to explain the government's motivation or what it knew about whether there was patent infringement. But that's the whole point of the simplified acquisition procedures that are used to purchase these kinds of supplies in relatively small quantities.

Simplified acquisition applies, per regulation, to sales under \$150,000. And almost all of Nightforce's sales to the U.S. government are that. They're for just a few scopes. If we look at slide 126, this is an example. It's for 120 scopes. It's not a huge order. Most of these are used in relatively small quantities by special -- for very special purposes, special operations and the like.

Now, there's not a lot of detail in a typical order, but there is some information there that supports Nightforce's position. The government is telling us that these products must be certified for national defense use. They're mil spec

products. There was a suggestion that these products are sold to others. Mil spec generally is not sold by Nightforce to civilians or non-government entities.

THE COURT: Are these contracts that are directly with the government or -- is this an example of a contract that's directly with the government or is being filtered through a third party or can you tell from the exhibit?

MR. DAVIS: I honestly don't recall from this exhibit. This may well be one that's through a prime contractor.

THE COURT: And from your perspective, that doesn't matter. As long as it's a government contract, the purposes of the statute are met; and the prime contractor, as well as the subcontractor, is protected.

MR. DAVIS: Absolutely, Your Honor. The statute is clear and the implementing regulations are clear that the protection flows down to subcontractors, and that's the intent.

The three-part test that Leupold argues Nightforce can't meet isn't really relevant. Their own cases state exactly the point that we're making. There's a different test that they aren't mentioning. The three-part test is one way to show implied authorization and consent, but in the District Court decision of *Madey v. Duke*, 413 F.Supp.2d 601, at 609, "Implied authorization and consent will also be found where

the government requires the private contractor to manufacture the allegedly infringing device."

Nightforce submits that's exactly what happens here, because the government orders a specific Nightforce model number. I've highlighted it in blue here on Exhibit 127 for an order that went directly to the FBI from Nightforce. They specify the Nightforce Optics model C297 scope.

Now, it can't possibly be Leupold's argument that the FBI or another government agency, the special operations units of the military, don't know what specific model -- what comes in -- what features are in specific Nightforce models. That's exactly what the government wants, and that's exactly what Nightforce is obligated to deliver pursuant to these contracts.

It would be a breach of contract, Your Honor, if Nightforce received an order from a government agency for a model like C297 and changed it because of an alleged patent infringement problem to be something different for the government.

THE COURT: I think they're taking the position that they couldn't accept the negotiations in the contract in the first place if they know that you're selling an infringing product.

MR. DAVIS: The parties don't seem to agree on what the law is here, Your Honor.

THE COURT: All right. That's my job then.

MR. DAVIS: Yeah. Well, that the government need not know of or require the infringement, that's not the test. The implied authorization and consent applies whenever a specific product is ordered by the government and that's what's delivered. And if it happens to have features that are accused of patent infringement, if those are features the government wanted, then it's absolutely covered.

And we're talking here about on some of these contracts -- loosely called because they're such simple documents. Many of them are on what's called Form 1449, and there's very little to it. It looks more like a purchase order than anything else. There's not a lot of contract language. But that's the whole point of simplified acquisition, to make that speedy and get these things delivered to the people who need it.

On slide 126, the part description refers to the ZeeroStop elevation brake, which just happens to be an accused feature in this case. But it need not specify that. The point is the government knows what it's getting when they order a specific part number from Nightforce, and Nightforce is obligated to deliver it notwithstanding any possible allegation of patent infringement.

Just briefly, to distinguish one of their cases, the TecSEC case involving Adobe software, the issue in that

case -- first, it may well have been wrongly decided. The District Courts don't seem to apply 1498 in ways that can necessarily be perfectly harmonized. But, in any event, in that case the Court was concerned that the specific feature of this Adobe software wasn't necessarily even requested by the government.

These products are very different, Your Honor. As we've seen through the various presentations on the summary judgment motions on the merits, I mean, virtually every piece of this Nightforce product is accused of patent infringement in some way. They accuse lens caps. They accuse the adjustment knobs. They accused the pivoting lens unit inside. I mean, there's virtually nothing left, other than the housing or the fact that it's a riflescope. All of these features can't be taken out of a product to avoid patent infringement allegations when it's supplied and sold to the government, and the government knows that.

So this seems, to us, to be a clear case where implied consent ought to be found for each of the purchases by the U.S. government from Nightforce. And the record has a pile of these documents in it, amounting to several thousand Nightforce scopes.

But, you know, going back to the original point, the spirit and intent of this law, it simply can't be that the government can't, on a simple form, or even without maybe a

paper form but a handshake, get a specific specialized piece of equipment like one of these riflescopes for use by its special forces or law enforcement without negotiating or knowing about or inquiring about whether there's alleged patent infringement. It's simply not a requirement that they know of any alleged patent infringement. It simply is enough that they order a specific product and that's what's delivered.

And that's exactly what the Act of 1918 and the later 1498 was meant to allow for, so that our military and our law enforcement agencies can get the equipment they need without any threat of patent infringement getting in the way.

THE COURT: Is there something in the documents that came through third parties to your client that would alert them that what they were ordering was, in fact, for the government? I mean, is that -- is that even a necessary requirement, or that it happens to be for the government gives them protection?

MR. DAVIS: So I think, Your Honor, you're asking about the sales that go through a primary contractor to the ultimate government purchaser.

So the way those really work is -- as outlined in the Bill Bracken declarations that we've submitted with this issue, what really happens is it may be funneled through a larger prime contract, a single smaller purchase, but this is

what the military does apparently. You know, they'll issue like a large contract for tens or hundreds of millions of dollars to a select number of prime contractors, and they get what they need. They literally have a catalog of stuff, and they get what the government orders from the subs.

But the greater point is do they know where it's coming from and going? Oftentimes, as Bill Bracken explained, what happens is the ultimate purchaser, like Navy Seals, for example, are in direct contact with the salespeople at Nightforce, and it's just an expediency that the actual money is flowing through a prime contract.

So the government knows exactly what they're ordering. The prime contractor knows what's happening, obviously. And Nightforce ultimately gets paid via the prime contract. But the government is effectively ordering the specific model number directly from Nightforce. It's just being paid via contract.

THE COURT: But if the prime contractor is somebody who has an existing relationship with the subcontractor and on a continuing basis is ordering the same thing -- and I don't know if I'm describing reality or not.

But if that's the reality, it might make some difference to me -- again, I'm going to go and read the statute and do statutory interpretation, right. But it might make some difference to me if the subcontractor, your client,

knows and is aware that really the ultimate purchaser in this case is the government: "I don't need to worry about infringement because I'm actually selling to the government," as opposed to "I'm selling to a prime contractor and I have no idea where those scopes are going, whether it's to the government or not."

Now, I don't know whether ultimately, when I'm deciding this issue, that will make a difference or not. And I don't know whether that evidence is something that exists in the record or not. But I'd like you to address that point.

MR. DAVIS: Absolutely, Your Honor. It's a great point.

And absolutely Nightforce knows where its scopes are going. And they know exactly the special operations unit, branch of the military, law enforcement agency. They know that these sales are ultimately being delivered to the United States government.

THE COURT: And is that something I can figure out from the record as it exists presently before this Court?

MR. DAVIS: I believe that's set forth in Bill Bracken's declaration, how it works. Because they went through, and it's -- because a lot of these contracts are relatively small, it's quite an exercise. There's a lot of paper, and I apologize for that, Your Honor. There are large binders with all of this.

But Nightforce went through and they identified every one of these sales that we put into the record. They went back and they -- you know, they had personal knowledge. Even if they didn't have a paper documenting it, they had personal knowledge of -- that each of these particular sales was destined for a U.S. government purchaser.

THE COURT: Okay. Thank you.

MR. PARK: Brief response, Your Honor?

THE COURT: Sure.

MR. PARK: Your Honor, the simplified acquisition procedure is not synonymous with automatic immunity, automatic sovereign immunity. Sure, the government can use the simplified acquisition procedures to expedite the provision of goods and services to satisfy its needs. That's a different issue, though, about whether or not that carries the legal implication of being subject to patent infringement liability for the contractor that fulfills the contract or not, or whether the patentee has to go to the Court of Federal Claims to seek a remedy for the patent infringement.

So simply because the SAP, that simplified procedure, is used doesn't -- that's not synonymous with "You can't sue us. We have a 'get out of jail free' card." In fact, clearly not all government contracts are subject to this sovereign immunity, this government contractor defense.

The question is whether the contract requires each of

the patents-in-suit or -- one question is -- or whether there are non-infringing alternatives. If that weren't the case, if it were so simple as Nightforce says, then there wouldn't be any need for FAR clause 52.227-1. It would automatically apply as soon as the government enters into a contract to be provided with goods or services.

Nightforce also raises the issue of flow-down provisions. Leupold agrees that where applicable, flow-down provisions that go to the prime contractor flow down and apply to the subcontractor. That's the law. We don't dispute that. The issue, though, is there has to be something to flow down. It's not just a matter of contract formation.

So, for example, Nightforce has used in one of its demonstratives, on slide 126 of Nightforce's presentation, docket 96-13, which I've marked with my arrow here, this was one of the government contracts -- government orders discussed in Mr. Ferris's declaration.

Under the flow-down column in the middle of this chart, Nightforce was arguing that "Here's a government order that was fulfilled. Flow-down applies. Therefore, we're immune."

The evidence shows, when we actually go and look at what the flow-down provision is, it's not a FAR clause regarding sovereign immunity or government contractor immunity at all. It's the code of conduct to the primary contractor,

which in this case was ADS; the code of conduct meaning, you know, "We're an equal opportunity employer. We don't tolerate certain types of behavior. These are your obligations in terms of disclosure because we have business with the government."

It doesn't talk about 52.227-1. It doesn't talk about authorization and consent for patent infringement. And so in that example, there's no -- there's no immunity that applies.

If, for example, the flow-down provision were otherwise, if the flow-down provision said, boom, "Here is authorization and consent," we would be having a different discussion, but that's not the case.

In addition -- would you mind going back to slide 126, please.

Nightforce has put up this transaction as another example of one that is subject to implied authorization and consent.

Now, to clarify the record, the ZeroStop functionally here is not accused of patent infringement in this case.

Nightforce actually owns its own patent on the ZeroStop.

That's a different technology. That's not to say that other features of the riflescopes that Nightforce chose to fulfill this transaction with may be accused of infringement. But in terms of the ZeroStop, it's a different technology than

Leupold's ZeroLock.

At the Markman hearing, the Court may recall the difference between a stop and a lock in terms of securing a device, a knob, against inadvertent rotation in two directions as opposed to just one direction.

So I make that point for two reasons: one, to clarify the record; secondly, the fact that in this example that Nightforce uses, this is not an example of the government asking for specific patented technology from Nightforce to fulfill a contract. This is an example of Nightforce deciding which of its technologies it's going to use in connection with this particular transaction.

Your Honor is correct that at the end of the day, the Court needs to resolve the legal dispute between the parties.

And the parties disagree about what the legal framework is.

A number of the District Courts come to different conclusions.

I think it's helpful, though, to keep in mind the fundamental guiding principle of sovereign immunity.

Sovereign immunity is not to be liberally construed, much less inferred. It has to be strictly construed. And in instances where it's appropriate, there has to be a legal -- either an express legal predicate or some sort of implicit authorization and consent based on the facts of that particular situation. It should be the exception rather than the default rule.

THE COURT: On all the cases that you are claiming

there was infringement based on this structure where there was a primary contractor who was in an agreement with the government, who then turned around and purchased scopes from the defense, do you believe that, while you may not assert them, that you have claims against the primary contractor as well, or is the analysis different as between the primary contractor and the subcontractor?

MR. PARK: That's a good question.

THE COURT: I like good questions.

MR. PARK: The answer, I think, depends on the same factual considerations about whether the government, when it was requesting product from the prime contractor or the primary contractor, whether it basically said, "We need riflescopes," and the prime contractor decided to fill the order with infringing riflescopes as opposed to one of the non-infringing alternatives.

Similarly, that same concept, as we've been using the concept "flow down," would flow down to the subcontractor. So if there is a government contract --

THE COURT: Well, but let me interrupt you there for a second.

So my question is if liability lands with Nightforce, why wouldn't it also be landing with the primary? Why would there be a difference in analysis?

MR. PARK: It could. Liability could land with both

if neither of them enjoyed authorization and consent.

THE COURT: But in order for them to have authorization and consent, that's going to depend on the same circumstances as between the government and the primary than as between the primary and Nightforce, would it not?

MR. PARK: Yes.

THE COURT: So it seems to me that in every case that you are claiming that Nightforce has liability, then, unless you can give me kind of weird examples, it seems to me that also that primary contractor would also have liability.

MR. PARK: That's possible.

THE COURT: You haven't really thought through that yet maybe.

MR. PARK: Well, I think the answer is the subcontractor should not be treated differently or specially just because they're a sub. If Nightforce were the prime contractor, the analysis would be the same. If Nightforce was the subcontractor for a prime contractor, the analysis is the same.

The question is whether between the government and the contracting parties there's been either express authorization and consent or implied authorization and consent.

THE COURT: I just can't think of an example where you would have liability that exists with Nightforce where it

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

wouldn't exist as regards the prime contractor. It seems to me that in every case, given the way you're looking at the statute, that if Nightforce is liable, that the prime would also be liable. MR. PARK: I think that's right, except here Nightforce's liability goes far beyond the prime contractor's liability because they've been selling vast amounts of riflescopes into the private market as well. THE COURT: That's separate, though, right? We're just talking about the government contracts here. talking about the rest of your case. I'm talking about just this issue. MR. PARK: No, I think you're right. Although there would be a question about remedies, harm, whether there are

double damages, issues we haven't thought of for purposes of this case.

THE COURT: I'm not talking about damages either. I'm only talking about issues of liability.

> I think the Court is correct. MR. PARK:

THE COURT: Okay. You can think about that some more.

MR. PARK: Right. I think that goes to the nature of the flow-down concept.

THE COURT: Right.

The flow-down concept is that prime and MR. PARK:

1 sub enjoy the same legal position, whatever that may be. 2 THE COURT: Okay. Thank you. 3 MR. FERRIS: If I may, Your Honor? THE COURT: Who are you? 4 5 MR. FERRIS: Kassim Ferris for the plaintiff. 6 If I may, Your Honor, just to supplement the question 7 you're asking about, if there is no implied authorization and 8 consent and only express authorization and consent between the 9 government and the prime contractor, but no flow-down 10 provision in the contract between the prime and subcontractor, 11 then that might be a situation where the subcontractor would 12 carry liability, but the prime would not. 13 Does that make sense? 14 THE COURT: It makes sense, although I can't imagine 15 how that would happen, but it makes sense. 16 Thank you. 17 MR. FERRIS: All right. 18 MR. DAVIS: If I might, Your Honor, briefly, Nightforce is not arguing that there's automatic applicability 19 of 1498. We don't need to. 20 21 The cases that really wrestle with whether 1498 22 applies generally do have fact patterns where the government 23 contract is fairly non-specific for goods and services, and

there might be -- and the question sometimes Courts ask is:

Was there flexibility in how the contract was fulfilled or did

24

25

the contractor necessarily need to infringe the patent?

That's not this case. Very specific models of Nightforce scopes are being ordered by the government.

And, I mean, going to this issue also of whether there are non-infringing alternatives, it's not -- that's a separate damages question for lost profits. I don't think that has any applicability here, whether there are non-infringing alternatives or non-infringing ways to comply with the contract.

But, again, while that's an interesting question some Courts have to grapple with, this Court need not because the government is ordering very specific Nightforce products.

And then the question is, well, could the government have ordered maybe a different Nightforce product or maybe a non-infringing one? Well, that question need not be answered here because Leupold accuses every single Nightforce scope ever made, which goes to the prior art on the '305 patent. But every single Nightforce scope is, in their view, within the scope of their patent.

So it's not like it depends on which model number the government is ordering. If they're ordering a Nightforce scope -- and they're doing it very specifically by model number. But in any event, any of these Nightforce scopes are accused of patent infringement by Leupold.

There was a mention of the particular contract that's

shown here on slide 126, and apparently counsel clicked on the link and found that the flow-down -- the language of the flow-down provision didn't actually show up. It went to a code of conduct or something like that.

But whether the prime contractor at present has a broken link on its website should not be a concern for deciding this case. The contract at issue, as many of them do with this contractor, prime contractor ADS, at ECF 96-13, at the bottom it says, "The terms and conditions found at" -- then the website link -- "adsinc.com/po-flowdowns are hereby incorporated into this Purchase Order by reference." If that link happened to be broken and didn't go to flow-down provisions but went to a code of conduct when counsel investigated that, that should have nothing to do with whether this defense applies here.

The government knew what it was ordering and it got what it ordered, and Nightforce had no option but to fulfill its contractual obligation to provide to the government scopes that were accused of infringement by Leupold, and we know that because every scope that Nightforce makes is accused of infringement by Leupold.

THE COURT: Thank you.

MR. PARK: Just briefly, Your Honor, there seems to be this fundamental disconnect. The starting point and the ending point of this analysis is this is an affirmative

defense. Nightforce bears the burden of proving this defense.

To that point, the key issue is whether Nightforce put evidence into the record about underlying government contracts. And so as described in the Ferris declaration, in the second column from the right, everywhere this is marked "no," there is no underlying government contract. There is no predicate in the record from which immunity could flow down. That's the point of this table on this page and the following page of the Ferris declaration.

Thank you.

THE COURT: So the contracts aren't in the record in enough detail or the contracts aren't in the record for me to understand whether or not they're government contracts or not that have the provisions of the statute contained therein?

MR. DAVIS: That is correct, Your Honor. As to some of the prime contracts, the prime contractor did not provide them to Nightforce.

What we do have, though, is evidence in the form of testimony from the Nightforce salespeople linking the specific sales transactions to the known government purchaser.

THE COURT: Okay. Thank you.

That's all for today. We gave you a new date and a new time for us to finish up.

Is there anything else we need to talk about before we stop for the day?

First from plaintiff's perspective? MR. PARK: No, Your Honor. Thank you. THE COURT: Thank you. From the defense perspective? MR. CASIMIR: No. MR. DAVIS: No, Your Honor. THE COURT: All right. Until next time. Thank you. We're in recess. (Proceedings adjourned.)

--00--

I certify, by signing below, that the foregoing is a correct transcript of the record of proceedings in the above-titled cause. A transcript without an original signature, conformed signature or digitally signed signature is not certified.

1-18-19

DATE

/s/ Nancy M. Walker

Official Court Reporter Oregon CSR No. 90-0091

NANCY M. WALKER, CSR, RMR, CRR

\$

\$150,000 [1] - 294:16 **\$5,000** [1] - 281:12 **\$80,000** [1] - 281:12

'067 [1] - 281:14 '305 [3] - 153:15, 221:19, 310:17 **'907** [123] - 82:19, 82:25, 83:15, 86:19, 87:3, 88:13, 91:8, 92:11, 92:14, 111:14, 121:2, 121:5, 121:7, 121:22, 121:24, 122:1, 122:9, 125:12, 125:15, 125:17, 125:18, 125:22, 127:16, 132:9, 133:2, 133:9, 133:10, 133:13, 134:20, 139:24, 140:5, 141:12, 142:21, 143:24, 144:3, 144:18, 144:23, 145:3, 150:12, 150:20, 151:4, 151:18, 152:5, 152:6, 152:16, 155:12, 158:20, 161:15, 163:4, 163:13, 163:18, 163:24, 164:1, 170:5, 170:14, 170:24, 172:12, 174:14, 177:8, 177:21, 179:4, 179:6, 179:9, 179:23, 180:4, 180:5, 180:12, 180:17, 180:20, 180:24, 183:19, 185:2, 185:6, 185:13, 185:15, 188:25, 190:21, 191:1, 197:10, 197:24, 199:4, 200:15, 200:16, 201:3, 203:6, 203:9, 203:21, 203:22, 204:5, 204:23, 205:6, 205:19, 206:6, 206:15, 206:16, 207:10, 208:17, 209:10, 209:21, 212:14, 215:3, 215:14, 218:11, 218:17, 218:21, 221:12, 227:23, 228:7, 232:8, 250:21, 259:16, 259:20, 261:6, 262:7, 263:8, 269:4, 271:2, 271:14, 273:6, 278:5, 280:2 **'95** [1] - 182:11 '96 [7] - 179:5, 179:16, 180:7, 181:9, 181:17, 181:19, 182:11

1

'97 [5] - 157:23, 226:15, 226:16, 227:3,

'98_[3] - 159:15, 185:4, 227:14

'99 [2] - 183:15, 190:4

'bench' [1] - 168:17

'groove' [1] - 253:7

'get [1] - 302:22

'pin' [1] - 87:20

/s [1] - 314:11

227:12

1

1 [25] **-** 89:19, 91:7, 94:8, 103:13, 112:5, 112:7, 112:12, 153:6, 155:13, 155:22, 161:21, 169:1, 169:4, 169:5, 170:6, 183:20, 231:22, 232:25, 233:5, 233:6, 233:9, 233:10, 234:25, 290:7

1-18-19 [1] - 314:11

1.1 [1] - 103:8

10 [34] - 89:19, 91:7, 112:6, 112:7, 112:15, 131:9, 136:7, 141:14, 141:24, 152:22, 152:24, 153:2, 153:5, 153:20, 154:5, 154:8, 155:10, 171:4, 182:19, 201:24, 211:4, 211:9, 225:22, 228:14, 228:15, 233:1, 233:7, 233:10, 233:11, 233:13, 233:16, 235:1, 237:10, 260:1

10(a [2] - 141:20, 142:6

10(b [1] - 142:6

10(c [1] - 142:7

10(c)(i [1] - 142:7

10(c)(ii [2] - 141:20, 235:2

10(c)(ii) [1] - 142:7

10-plus-year [1] - 204:3

10-year [1] - 212:11

1000 [1] - 80:19

102[1] - 140:9

102(b) [1] - 218:14

1042 [1] - 194:4

10th [2] - 163:10, 244:24

11 [3] - 79:5, 120:11, 135:7

12[2] - 240:9, 246:24

120[1] - 294:18

121 [1] - 80:15

122 [7] - 91:15, 92:16, 92:18, 92:22,

93:9, 93:13, 94:3

126 [5] - 294:18, 297:17, 303:14,

304:15, 311:1

1269 [1] - 194:6

127 [1] - 296:5

12th [2] - 282:24, 283:2

13 [1] - 283:2

1336 [1] - 195:21

137 [1] - 284:1

13th [3] - 282:24, 283:3, 283:5

144 [1] - 194:16

1449 [1] - 297:11

149 [1] - 275:1

1498 [6] - 284:11, 293:23, 298:2,

299:10, 309:20, 309:21

1498(a [4] - 292:20, 293:5, 293:12, 293:16

1498(a) [1] - 285:20

15 [5] - 137:8, 141:9, 182:19, 233:14, 254:3

1531 [1] - 277:17

1578 [1] - 239:12

16 [24] - 88:21, 89:18, 90:19, 112:2, 112:5, 112:17, 114:19, 114:21, 141:10, 190:2, 190:13, 190:15, 190:21, 198:6, 198:7, 198:12, 230:24, 232:1, 232:4, 236:19, 249:17, 251:7, 273:13

16-cv-1570 [1] - 81:6

1600 [1] - 80:15

17_[3] - 87:5, 120:11, 262:14

18th [1] - 162:24

19 [1] - 246:24

1918 [3] - 293:5, 293:24, 299:9

1978 [1] - 218:10

1990 [1] - 286:17

1992 [2] - 129:6, 286:22

1994 [1] - 288:19

1995 [27] - 97:3, 100:12, 101:13, 101:15, 102:7, 102:18, 102:19, 103:9, 105:8, 106:16, 131:11, 178:15, 179:2, 179:5, 179:16, 180:3, 180:7, 181:8, 181:17, 181:18, 183:2, 247:7, 247:9, 247:11, 247:13, 280:15, 280:17

1995-'96 [1] - 270:16

1996 [16] - 101:16, 102:9, 102:18, 102:24, 103:15, 103:17, 103:23, 104:1, 104:4, 105:8, 178:15, 179:2, 180:3, 247:9, 247:13, 280:18

1997 [16] - 136:18, 136:22, 145:23, 146:19, 147:25, 149:2, 214:3, 223:19, 223:24, 224:2, 224:24, 227:7, 266:7, 267:4, 267:10, 268:12

1998 [31] - 96:11, 96:12, 97:2, 97:5, 99:16, 100:1, 100:6, 100:7, 101:19, 102:10, 103:16, 103:21, 106:19, 145:6, 145:13, 148:7, 148:14, 150:2, 157:21, 157:25, 159:2, 159:6, 159:9, 199:22, 200:2, 200:6, 226:8, 227:1,

1999 [88] - 106:19, 157:14, 159:10, 159:15, 175:22, 176:11, 178:6,

227:4, 227:8, 239:16

179:15, 183:4, 183:13, 183:25, 185:7,

185:11, 185:15, 185:20, 185:23,

186:17, 186:18, 186:24, 189:1,

189:12, 189:15, 189:21, 190:5,

190:18, 191:5, 192:12, 192:20,

192:21, 193:4, 193:5, 193:12, 193:13,

193:21, 194:7, 194:10, 194:22,

194:24, 195:11, 195:17, 195:19,

195:24, 195:25, 197:1, 197:5, 197:8,

197:14, 197:22, 197:25, 198:15,

198:18, 199:1, 199:2, 199:5, 199:6,

199:13, 203:10, 223:2, 223:17, 226:8,

226:20, 260:10, 260:14, 273:10,

273:15, 273:17, 273:19, 274:5, 274:6,

274:21, 275:9, 275:11, 275:15,

275:17, 275:21, 276:8, 276:15,

276:17, 276:23, 277:3, 277:12,

277:17, 277:19, 278:1, 278:5

19th [1] - 186:13 1:00 [1] - 184:17

1A.1 [1] - 103:8

2

2[7] - 79:16, 168:21, 169:17, 171:11, 175:9, 284:3, 290:25

2000 [26] - 157:11, 185:10, 185:25, 186:22, 189:7, 189:25, 191:25, 192:23, 194:4, 194:12, 197:9, 198:8, 199:9, 199:12, 200:14, 215:14,

8

9

Α

according [4] - 197:11, 201:1, 215:25,

256.14

account [1] - 98:14

223:16, 223:20, 223:23, 226:9, 227:5, 31 [4] - 157:11, 223:15, 223:20, 223:23 260:10, 273:8, 275:22, 278:1, 278:2 310 [1] - 80:11 2002 [2] - 107:4, 200:16 326-8186 [1] - 80:20 **7**[9] - 85:17, 85:22, 88:23, 237:1, 237:2, 2003 [24] - 121:9, 121:22, 121:23, 332 [1] - 274:23 237:3, 237:4, 237:14, 238:13 122:10, 124:1, 124:23, 125:6, 125:9, **35** [2] - 219:19, 265:20 **70** [1] - 219:17 200:21, 200:24, 201:21, 205:12, 35-page [1] - 219:18 **73** [1] - 269:3 215:17, 216:1, 216:15, 216:25, 36 [2] - 241:24, 246:24 **76** [1] - 108:17 217:20, 254:17, 256:12, 259:16, **360** [4] - 183:6, 183:9, 248:21, 249:5 **760** [1] - 80:7 259:21, 260:5, 260:12, 260:22 **3600** [1] - 80:3 79 [1] - 239:12 **2004** [5] - 148:19, 149:1, 201:2, 201:3, 365 [1] - 286:21 **369** [1] - 286:22 **2006** [21] - 138:12, 148:20, 149:1, 201:5, **370** [1] - 286:22 201:20, 201:22, 202:7, 206:4, 208:6, **80** [1] - 241:25 38 [1] - 120:11 211:1, 211:21, 212:5, 214:10, 259:23, 801 [1] - 266:14 3:16-cv-01570-HZ [1] - 79:4 260:5, 260:7, 260:17, 262:17, 262:22, 801(d)(2)(B [1] - 225:6 262:24, 266:7 **801(d)(2)(E**[1] - 225:12 4 2007 [14] - 134:13, 134:19, 134:22, **81** [1] - 241:25 202:6, 204:20, 207:4, 207:13, 207:21, **4** [19] - 133:11, 168:16, 169:4, 169:22, **83-2** [2] - 194:16, 275:1 207:24, 211:1, 211:2, 211:12, 211:25, 171:12, 171:17, 171:20, 172:1, 89 [1] - 286:16 262.8 173:12, 174:5, 174:7, 175:1, 175:5, 2008 [3] - 210:19, 211:25, 262:8 175:9, 187:13, 188:13, 188:16, 190:8, 2009 [3] - 187:15, 188:9, 188:18 241:15 2010 [2] - 110:6, 212:15 90-0091 [1] - 314:13 413 [1] - 295:24 2012 [3] - 194:6, 202:10, 202:13 92-1 [1] - 246:25 **485** [1] - 237:11 **2013** [3] - 187:16, 188:6, 202:22 **49** [1] - 108:17 94[1] - 286:17 2014 [1] - 202:22 498 [1] - 286:16 **96-13** [2] - 303:15, 311:8 2016 [26] - 118:21, 119:11, 121:2, 97 [1] - 212:13 121:10, 125:9, 125:10, 128:3, 128:7, 5 97204 [2] - 80:16, 80:19 134:20, 203:5, 203:17, 203:20, 97205 [1] - 80:8 203:22, 204:20, 205:5, 205:13, 206:6, **5** [3] - 133:12, 163:25, 164:16 98101 [1] - 80:4 208:17, 208:19, 210:19, 211:2, 50 [2] - 187:20, 188:16 9:00 [1] - 283:7 212:15, 217:6, 259:16, 260:24, 262:9 **503** [1] - 80:20 2016-to-2017 [1] - 212:2 **52** [1] - 191:9 **2017** [6] - 204:25, 208:15, 211:2, 215:4, **52.227-1** [4] - 284:18, 285:7, 303:4, 217:7, 288:21 304.6 A.C [1] - 135:19 2019 [1] - 79:5 **53562** [1] - 80:12 abandoned [3] - 202:7, 207:4, 211:13 21 [2] - 164:18, 277:1 **54** [3] - 190:10, 190:19, 273:10 ability [4] - 99:4, 111:3, 154:25, 225:18 **216**[1] - 194:4 **able** [8] - 126:24, 165:7, 214:6, 229:10, 56 [1] - 197:24 **2275** [1] - 80:11 245:18, 249:2, 250:12, 273:19 58 [1] - 145:21 22nd [1] - 157:23 **598** [2] - 195:20, 277:17 above-described [1] - 196:4 **238** [1] - 120:12 above-titled [1] - 314:5 5th [1] - 244:24 absence [3] - 160:9, 164:16, 257:12 **24** [2] - 159:2, 159:6 **242** [1] - 120:12 absent [6] - 101:21, 144:14, 165:9, 6 25th [1] - 163:17 272:12, 291:4, 291:14 **6** [37] **-** 85:6, 87:13, 88:20, 88:21, 88:23, 26 [5] - 103:9, 105:9, 157:21, 157:25, absolute [1] - 165:22 89:18, 90:19, 112:2, 112:5, 112:16, 286:21 absolutely [9] - 131:4, 260:15, 262:5, 114:19, 114:20, 190:2, 190:13, **27** [1] - 102:9 262:8, 266:5, 295:15, 297:8, 301:11, 28 [3] - 284:10, 293:12, 293:16 190:15, 190:20, 198:5, 198:6, 198:12, 301:13 230:4, 230:24, 231:2, 231:20, 231:22, abundance [1] - 121:13 **29** [2] - 157:14, 223:17 232:1, 232:4, 236:19, 237:2, 237:3, abundantly [1] - 285:24 29th [1] - 163:3 237:4, 237:15, 238:2, 238:11, 249:17, abuse [2] - 244:13, 244:14 251:6, 273:13 3 accept [5] - 149:11, 167:2, 167:3, 600 [1] - 80:3 286:19, 296:21 601 [1] - 295:24 **3** [7] - 168:19, 169:19, 171:11, 175:9, acceptable [1] - 83:4 609 [1] - 295:24 182:24, 284:5, 291:6 access [1] - 225:21 **665** [1] - 194:6 **30** [2] - 106:5, 239:23 accessory [1] - 273:4 **30(b)(6**[8] - 86:14, 129:16, 129:17, **68** [1] - 248:17 accomplish [1] - 146:2

69 [3] - 108:17, 141:9, 277:1

130:7, 130:15, 209:4, 225:7

3000 [1] - 80:7

301 [1] - 80:19

accurate [4] - 134:3, 178:20, 251:14, 252:12 accuse [2] - 298:11 accused [23] - 84:15, 85:2, 85:5, 86:24, 87:1, 87:18, 91:10, 113:19, 199:25, 200:3, 235:20, 268:23, 269:24, 289:22, 297:7, 297:18, 298:10, 298:12, 304:20, 304:24, 310:24, 311:19, 311:20 accuses [1] - 310:16 acknowledge [1] - 158:2 acknowledged [3] - 178:16, 179:8, Acquisition [1] - 284:17 acquisition [6] - 285:8, 294:13, 294:15, 297:15, 302:10, 302:13 act [2] - 286:20, 288:13 Act [5] - 288:6, 293:5, 293:11, 293:24, 299.9 acting [1] - 231:7 action [9] - 115:5, 115:6, 115:11, 115:14, 115:20, 115:25, 116:1, 130:24, 289:14 actions [2] - 139:6, 258:10 activities [1] - 288:7 acts [3] - 157:24, 236:11, 286:18 actual [14] - 107:25, 149:20, 159:10, 159:14, 168:15, 168:18, 168:21, 176:15, 196:13, 227:7, 229:15, 249:13. 300:10 actuator [79] - 83:18, 84:10, 91:6, 91:14, 91:19, 91:20, 91:22, 91:25, 92:10, 92:11, 92:15, 92:22, 92:24, 93:3, 93:7, 93:8, 93:13, 93:18, 93:21, 94:3, 94:4, 94:5, 94:10, 94:11, 94:14, 94:16, 94:19, 94:22, 94:25, 95:5, 95:6, 95:8, 95:10, 95:14, 95:16, 96:1, 152:7, 152:14, 152:20, 154:7, 154:16, 154:17, 154:19, 155:1, 155:2, 155:5, 155:7, 171:1, 171:2, 171:3, 174:11, 227:25, 228:4, 228:6, 228:7, 228:9, 228:10, 228:17, 228:19, 229:1, 232:24, 233:2, 233:3, 233:13, 233:23, 234:10, 235:3, 235:4, 235:10, 268:20, 268:22, 268:24, 269:7, 269:15, 269:21, 269:23, 279:24, 280:2 actuators [1] - 82:5 adamant [1] - 147:24 add [5] - 89:18, 104:1, 196:2, 203:18, 250:7 added [7] - 113:10, 124:16, 159:1, 189:8, 204:5, 250:9, 268:13 adding [6] - 125:11, 204:1, 205:7, 213:18, 215:4, 273:3 addition [19] - 103:25, 104:9, 105:19, 106:4, 108:14, 112:22, 113:20, 127:7, 135:18, 142:3, 162:22, 167:25, 243:14, 245:22, 250:25, 255:7, 279:10, 304:14 additional [11] - 137:25, 142:3, 191:24,

195:24, 196:23, 197:5, 226:7, 228:5, agency [3] - 296:9, 296:16, 301:15 278:24, 278:25, 279:2 additions [1] - 196:16 address [10] - 109:22, 150:13, 150:19, 167:15. 167:23. 170:16. 210:8. 251:13 211:15, 219:22, 301:10 addressed [2] - 113:23, 142:16 addresses [1] - 210:6 addressing [2] - 168:9, 272:8 adds [1] - 139:12 adequately [1] - 280:19 adjourned [1] - 313:11 adjust [5] - 105:3, 105:4, 218:18, 222:10 adjustable [6] - 141:17, 153:4, 153:20, 154:6, 233:25 adjusted [1] - 167:18 adjusting [2] - 86:11, 155:15 adjustment [13] - 112:11, 152:3, 152:6, 153:7, 153:8, 153:18, 154:2, 173:20, 174:17, 174:19, 174:20, 271:14, 298:12 adjustments [2] - 161:25, 171:14 administrative [1] - 289:14 admissible [2] - 109:13, 149:13 admission [4] - 130:7, 225:11, 247:3, 266:7 admissions [4] - 130:15, 130:16, 247:19, 248:10 admits [3] - 84:25, 91:13, 120:3 admitted [8] - 147:25, 149:24, 182:17, 205:14, 206:14, 225:8, 246:21, 279:11 Adobe [2] - 297:25, 298:5 adopted [3] - 113:6, 125:7, 225:10 adopting [1] - 141:8 ADS [2] - 304:1, 311:8 adsinc.com/po [1] - 311:10 adsinc.com/po-flowdowns [1] - 311:10 advance [2] - 149:18, 149:19 advantage [1] - 139:9 advertised [2] - 148:5, 267:4 advertisement [1] - 146:3 advertisements [9] - 145:16, 145:20, 145:22, 146:5, 146:11, 224:5, 224:8, 263:24 224:25, 266:19 advertising [2] - 223:25, 224:2 advocated [2] - 88:9, 191:18 advocating [1] - 293:22 Affairs [1] - 286:16 affect [1] - 186:2 affecting [1] - 150:25 affidavit [13] - 101:9, 109:21, 110:17, 110:18, 111:2, 165:14, 165:17, 166:1, 166:2, 166:5, 166:20, 166:23, 167:4 affidavits [1] - 110:2 affirmatively [2] - 150:12, 218:2 afternoon [2] - 184:22, 184:25 afterthought [1] - 221:4 afterwards [3] - 159:15, 159:19, 208:20 agencies [1] - 299:11

aggressive [1] - 282:6 agnostic [2] - 188:14, 190:8 ago [5] - 84:8, 94:24, 126:8, 127:14, agree [8] - 105:12, 127:22, 130:20, 217:19, 254:23, 281:22, 282:4, 296:24 agreed [5] - 91:24, 92:12, 230:1, 254:22, 280:13 agreeing [1] - 173:11 agreement [5] - 82:11, 88:8, 215:7, 225:19, 306:2 agrees [4] - 88:17, 135:9, 163:6, 303:8 ahead [8] - 86:13, 87:2, 137:14, 139:14, 182:12, 182:18, 185:3, 224:15 aiming [10] - 139:25, 141:17, 153:20, 153:23, 174:21, 221:2, 221:9, 264:6, 265:3, 265:4 Akeso [3] - 257:20, 257:25, 258:2 alarm [1] - 264:20 alert [1] - 299:14 aligned [1] - 171:5 allegation [2] - 129:9, 297:23 allegations [2] - 293:7, 298:16 alleged [11] - 127:12, 183:2, 183:21, 202:14, 218:15, 218:19, 268:23, 271:16, 296:17, 299:4, 299:6 allegedly [6] - 110:8, 136:16, 136:19, 170:16, 197:8, 296:2 alleging [3] - 166:8, 201:5, 203:5 Allen [1] - 87:3 Allied [1] - 165:21 allow [3] - 177:14, 201:13, 299:10 allowed [5] - 109:7, 109:17, 125:1, 188:17, 188:19 allows [6] - 94:17, 108:2, 188:18, 189:17, 210:1, 230:21 alluding [1] - 275:8 almost [11] - 88:15, 102:9, 102:19, 126:11, 135:15, 201:24, 206:21, 220:2, 222:25, 263:17, 294:16 alone [9] - 117:2, 126:24, 130:16, 156:25, 160:4, 160:8, 175:9, 175:11, ALSO [1] - 80:17 Altenheiner [24] - 84:4, 139:18, 139:20, 139:24, 140:4, 140:13, 140:14, 142:22, 142:24, 143:9, 143:11, 143:12, 144:10, 144:11, 173:14, 218:8, 218:9, 218:19, 222:20, 264:2, 265:6, 265:10, 265:11, 265:13 alternative [12] - 116:12, 117:11, 128:16, 130:11, 189:14, 189:17, 192:14, 193:20, 195:8, 197:22, 225:15, 275:13 alternatives [5] - 286:2, 303:2, 306:16, 310:5, 310:8 Amended [1] - 204:4 amount [2] - 86:21, 204:7 amounting [1] - 298:21

amounts [1] - 308:7 ample [2] - 96:25, 280:9 analogous [3] - 120:6, 120:8, 221:6 analogy [2] - 242:9, 273:3 analysis [11] - 114:19, 119:1, 119:7, 193:22, 194:14, 276:6, 306:6, 306:24, 307:17, 307:18, 311:25 ancient [1] - 218:9 Ann [2] - 80:9, 81:22 annotated [1] - 139:20 annotation [1] - 140:15 answer [18] - 90:16, 100:2, 116:22, 129:23, 130:4, 130:6, 134:10, 134:15, 143:7, 147:25, 173:8, 253:9, 253:15, 273:21, 276:7, 306:10, 307:14 answered [2] - 191:15, 310:15 answers [1] - 87:10 antecedent [5] - 141:2, 141:5, 141:15, 141:25, 142:5 anticipate [3] - 142:20, 218:20, 245:7 anticipates [3] - 140:4, 176:3, 184:4 anticipating [4] - 140:13, 142:22, 142:24, 265:13 anticipation [7] - 138:2, 140:7, 140:8, 144:2, 218:24, 220:6, 265:8 apart [6] - 152:5, 226:11, 226:17, 226:21, 264:11, 264:18 apologize [1] - 301:24 appear [3] - 157:6, 159:12, 276:17 APPEARANCES[1] - 80:1 appearances [1] - 81:7 appeared [2] - 289:18, 291:12 appearing [1] - 167:8 applicability [2] - 309:19, 310:7 applicable [5] - 99:20, 285:11, 285:14, 287:4, 303:8 applicant [8] - 194:23, 196:22, 215:21, 215:25, 216:12, 216:15, 216:24, 217:9 applicant's [1] - 216:21 application [92] - 90:20, 92:20, 111:15, 111:18, 111:19, 111:20, 113:2, 113:7, 114:22, 115:13, 117:1, 117:6, 121:25, 122:12, 122:13, 124:3, 145:5, 156:3, 157:14, 159:8, 185:7, 185:8, 185:15, 185:16, 185:23, 186:1, 186:9, 186:10, 186:11, 186:18, 186:23, 186:24, 187:9, 187:15, 187:18, 188:9, 188:22, 189:1, 189:6, 189:22, 191:25, 192:13, 192:20, 192:21, 192:24, 193:21, 194:8, 194:10, 194:13, 194:22, 195:8, 195:12, 195:17, 195:19, 195:24, 196:1, 197:2, 197:5, 197:8, 197:9, 197:14, 197:22, 197:25, 198:8, 198:19, 199:5, 200:7, 200:8, 200:9, 200:11, 227:11, 254:15, 273:15, 273:17, 273:19, 273:20, 274:6, 274:21, 275:9, 275:11, 275:15, 275:18. 275:21. 276:8. 276:15. 276:18, 276:23, 277:3, 277:12, 277:17, 277:19, 278:2

applications [3] - 111:16, 187:17, 193:7 applied [3] - 276:23, 279:12, 286:12 applies [11] - 113:4, 166:23, 172:12, 279:7, 292:23, 294:15, 297:4, 303:20, 304:9, 309:22, 311:15 apply [6] - 186:7, 292:2, 293:4, 298:2, 303:5, 303:9 approach [2] - 121:11, 168:13 appropriate [9] - 89:2, 144:17, 145:4, 175:11, 205:12, 258:8, 259:19, 266:14, 305:21 April [1] - 119:10 archived [1] - 103:23 archives [1] - 106:1 area [2] - 90:1, 244:10 arguable [1] - 125:20 argue [8] - 93:25, 94:4, 139:9, 165:7, 173:16, 198:5, 210:24, 270:12 argued [9] - 91:22, 165:6, 217:13, 220:10, 225:2, 230:4, 272:1, 273:24, 281:23 argues [12] - 102:11, 109:3, 120:25, 127:12, 140:3, 211:7, 236:7, 244:21, 246:21, 254:11, 285:15, 295:19 arguing [8] - 130:11, 144:22, 160:24, 164:2, 201:20, 274:24, 303:19, 309:19 argument [84] - 81:4, 86:25, 93:18, 93:20, 94:2, 94:7, 106:18, 106:20, 107:2, 107:3, 108:10, 112:16, 115:16, 117:21, 121:11, 123:11, 123:24, 125:8, 126:1, 134:18, 138:10, 138:19, 139:12, 139:15, 140:6, 140:16, 140:20, 143:23, 164:12, 166:6, 166:8, 172:3, 172:11, 172:12, 210:3, 211:1, 211:2, 211:17, 212:24, 219:8, 219:22, 220:5, 221:4, 221:5, 223:9, 230:16, 230:18, 232:4, 236:8, 239:11, 244:22, 245:7, 248:14, 248:18, 254:10, 254:17, 254:19, 256:18, 256:19, 256:25, 257:9, 258:12, 259:14, 259:22, 259:25, 260:22, 261:1, 263:13, 263:15, 263:16, 264:3, 266:18, 268:20, 273:1, 273:11, 274:20, 279:23, 282:14, 285:6, 292:14, 292:25, 296:8 arguments [15] - 107:1, 127:21, 127:23, 129:15, 143:25, 208:25, 211:15, 220:2, 220:3, 257:23, 264:1, 268:18, 272:3, 282:4, 282:7 Ariad [3] - 195:20, 277:15, 277:17 **arm** [10] - 85:10, 85:14, 85:15, 86:10, 86:23, 95:11, 95:15, 171:2, 238:4, 238:11 arranged [1] - 140:10 arrow [1] - 303:15 art [88] - 90:21, 90:25, 96:13, 96:17, 97:20, 107:6, 114:25, 115:23, 116:8, 116:10, 116:23, 116:24, 118:2, 118:8, 118:16, 119:2, 119:4, 119:5, 120:14, 120:17, 125:17, 136:9, 136:13,

138:13, 138:16, 138:18, 138:25, 139:4, 140:10, 142:22, 143:9, 143:10, 143:19, 143:24, 144:9, 144:19, 144:23, 146:1, 146:12, 156:1, 156:3, 156:16, 157:16, 157:17, 157:18, 157:25, 158:4, 173:14, 194:10, 194:22, 195:12, 196:3, 196:15, 196:20, 197:3, 199:11, 199:21, 200:1, 201:11, 203:11, 203:14, 211:22, 218:11, 218:13, 222:2, 224:19, 227:9, 227:20, 251:9, 251:18, 251:19, 252:1, 252:3, 252:10, 252:23, 253:1, 253:14, 260:10, 271:3, 273:19, 273:22, 275:3, 277:12, 277:20, 279:14, 310:17 Arthur [2] - 194:4, 276:1 artillery [1] - 264:25 arts [5] - 116:14, 116:20, 171:22, 221:7 Asahi [2] - 169:9, 169:13 ascertainable [1] - 268:10 Asdale [1] - 166:18 aside [1] - 129:15 aspect [7] - 112:4, 173:4, 176:23, 233:18, 235:12, 238:25, 239:5 aspects [2] - 153:16, 290:5 assemble [1] - 176:14 assembled [4] - 87:10, 100:20, 237:15, 243:15 assemblies [1] - 187:21 assembly [5] - 85:4, 153:13, 153:22, 178:14, 237:4 assert [10] - 205:2, 205:4, 205:21, 206:1, 206:18, 206:24, 212:18, 225:18, 238:24, 306:4 asserted [23] - 91:7, 152:23, 157:13, 158:8, 162:9, 176:4, 184:5, 191:1, 198:5, 198:6, 198:17, 199:4, 200:17, 201:9, 207:10, 207:19, 208:22, 212:14, 219:17, 249:24, 273:13, 278:6, 284:10 asserting [9] - 99:10, 99:13, 128:14, 136:14, 163:11, 201:9, 203:25, 205:20, 208:17 assertion [3] - 167:8, 206:6, 241:9 assertions [3] - 162:19, 194:1, 276:4 asserts [5] - 109:25, 126:4, 205:11, 279:6, 284:12 assess [1] - 141:13 assessing [2] - 167:24, 173:3 assessment [1] - 252:3 assist [1] - 265:4 assistant [1] - 148:24 associated [6] - 104:17, 104:23, 148:1, 209:21, 216:3, 229:4 assume [2] - 87:11, 186:3 assumed [3] - 202:6, 207:3, 225:10 assumes [2] - 253:20, 259:14 assuming [1] - 223:1 assumption [3] - 202:8, 203:2, 257:6 attach [1] - 250:15 attached [6] - 85:15, 94:6, 101:5,

173:19, 213:14, 279:2 attaches [2] - 94:10, 95:12 attaching [1] - 244:19 attempt [1] - 288:4 attempted [3] - 198:20, 290:14, 291:12 attempting [1] - 231:2 attention [1] - 151:3 attesting [1] - 106:2 attorney [7] - 166:6, 166:8, 172:3, 181:10, 182:14, 230:18, 289:10 Attorney [1] - 284:3 Auckerman [1] - 135:19 August [2] - 203:20, 211:2 authenticated [1] - 110:14 authenticates [1] - 104:19 **authorities** [1] - 123:14 authority [9] - 112:25, 113:17, 239:3, 251:3, 257:1, 257:2, 279:5, 279:16 authorization [35] - 284:15, 284:23, 285:2, 285:13, 285:17, 285:20, 286:7, 286:17, 287:5, 287:8, 287:17, 287:19, 288:1, 288:17, 289:5, 289:8, 289:20, 290:13, 291:4, 291:17, 291:18, 292:3, 295:23, 295:25, 297:4, 304:7, 304:12, 304:17, 305:22, 307:1, 307:3, 307:22, 309:7, 309:8 authorize [1] - 290:21 authorized [1] - 290:13 authorizing [1] - 288:2 automated [1] - 264:24 automatic [5] - 285:24, 286:9, 302:11, 309.19 automatically [6] - 107:7, 264:14, 264:23, 285:11, 303:4 automobile [1] - 242:11 available [13] - 126:15, 145:1, 145:12, 146:22, 147:2, 148:12, 149:8, 149:9, 149:16, 149:21, 150:1, 150:25, 291:3 Avenue [2] - 80:7, 80:19 avoid [3] - 201:13, 210:2, 298:15 aware [17] - 129:21, 129:23, 130:1, 130:4, 159:3, 185:24, 191:17, 200:4, 200:12, 201:20, 202:15, 202:21, 209:7, 210:20, 261:3, 271:2, 301:1

В

axis [6] - 94:12, 94:18, 154:18, 269:11,

269:14, 269:15

back-and-forth [6] - 127:13, 127:18, 135:11, 136:7, 138:12, 214:4
backdate [2] - 185:3, 185:6
backed [5] - 102:18, 102:24, 210:21, 219:1, 219:2
background [3] - 111:16, 151:14, 151:24
backlash [1] - 174:2
backpedal [1] - 87:19
backs [1] - 104:3

backup [7] - 102:8, 103:3, 103:4, 103:5,

103:14, 103:17, 169:15 backward [1] - 126:8 bad [2] - 184:8, 242:25 ball [4] - 128:21, 129:7, 139:7, 257:16 banc [2] - 195:20, 277:15 barring [2] - 135:22, 259:11 bars [1] - 139:10 base [1] - 89:19 based [21] - 92:16, 93:12, 96:5, 98:11, 98:18, 121:11, 132:16, 136:16, 157:22, 179:7, 203:24, 208:11, 212:12, 227:19, 229:16, 264:17, 268:18, 273:21, 284:13, 305:23, 306:1 bases [1] - 217:4 basic [1] - 105:25 basing [1] - 147:25 basis [33] - 88:25, 114:19, 120:13, 125:21, 132:3, 133:3, 141:2, 141:5, 141:15, 141:25, 142:5, 144:14, 161:6, 170:10, 175:11, 177:20, 179:16, 179:24, 181:18, 182:10, 183:20, 185:5, 198:20, 226:4, 227:17, 245:9, 247:24, 256:17, 266:14, 277:18, 279:8, 289:2, 300:20 battery [1] - 264:24 battle [3] - 251:7, 253:3, 273:23 bear [2] - 164:3, 232:14 bears [1] - 312:1 became [2] - 122:21, 200:4 Beckerman [1] - 283:22 become [1] - 218:14 becomes [2] - 272:9, 273:18 BEFORE [1] - 79:18 begin [3] - 173:10, 215:10, 215:12 beginning [10] - 122:24, 141:24, 153:2, 165:1, 233:25, 244:25, 274:23, 282:12, 291:19 behalf [4] - 130:11, 284:7, 289:10, 290:22 behave [1] - 231:17 behavior [11] - 202:20, 203:3, 205:2, $205{:}12,\,205{:}22,\,208{:}8,\,209{:}8,\,210{:}7,$ 210:8, 216:7, 304:3 behind [2] - 140:5, 238:3 belief [2] - 133:23, 201:2 belies [1] - 205:13 believable [3] - 98:1, 102:1, 239:8 believes [2] - 204:3, 247:12 below [9] - 90:2, 114:6, 114:8, 188:20, 189:23, 191:6, 228:5, 229:6, 314:3 belt [5] - 121:11, 205:11, 208:18, 208:19, 217:18 belt-and-suspenders [2] - 121:11, 205:11

belts [4] - 217:13, 217:14, 217:19

Bender [58] - 84:5, 136:15, 136:17,

144:19, 144:23, 144:25, 145:6,

145:11, 145:18, 145:19, 145:24,

146:8, 146:17, 146:25, 148:5, 148:8,

bend [1] - 162:6

148:11, 148:18, 148:19, 148:22, 148:23, 148:25, 149:1, 149:4, 157:20, 158:10, 159:3, 159:6, 185:4, 199:23, 200:5, 211:24, 214:2, 214:5, 214:6, 214:8, 222:21, 222:24, 223:15, 223:18, 223:22, 223:25, 224:19, 224:20, 224:24, 225:16, 226:8, 226:23, 227:11, 227:18, 227:20, 263:13, 266:3, 266:6, 267:9, 267:19 bender [2] - 149:8, 266:9 Bender's [2] - 200:13, 266:5 bender's [1] - 148:24 beside [1] - 124:3 best [4] - 186:21, 199:19, 243:11, 282:24 better [5] - 123:18, 151:9, 242:10, 242:21, 254:1 between [48] - 82:11, 86:5, 86:7, 86:16, 86:25, 87:25, 88:17, 90:8, 91:12, 99:9, 103:12, 107:20, 110:22, 110:25, 111:1, 112:2, 121:16, 123:7, 125:18, 126:5, 126:24, 155:16, 174:9, 182:19, 192:3, 200:8, 212:15, 225:19, 225:25, 235:10, 252:5, 260:9, 262:9, 264:12, 264:22, 269:16, 269:21, 274:10, 278:3, 278:18, 305:3, 305:14, 306:6, 307:4, 307:5, 307:20, 309:8, 309:10 beyond [3] - 125:16, 245:15, 308:6 biased [1] - 160:7 bibliographic [1] - 122:4 **big** [2] - 294:8, 294:9 Bill [3] - 299:23, 300:7, 301:20 Billy [1] - 81:14 binders [1] - 301:25 binocular [8] - 140:4, 173:14, 173:16, 173:19, 221:7, 221:14, 264:9, 264:13 Binoculars [1] - 173:18 binoculars [22] - 139:19, 139:22, 140:2, 173:25, 218:9, 218:21, 219:1, 219:5, 220:8, 220:23, 220:25, 221:2, 221:6, 221:9, 221:17, 222:3, 264:2, 264:3, 264:17, 265:2, 265:6, 265:9 bit [17] - 85:8, 87:19, 88:4, 100:24, 101:13, 103:10, 111:16, 111:23, 150:15, 151:8, 165:19, 170:21, 170:23, 186:21, 189:8, 232:18, 281:4 bits [1] - 167:19 blame [1] - 274:15 blanket [2] - 284:13, 286:24 Blizzard [1] - 121:19 blow [1] - 152:5 blow-apart [1] - 152:5 blowing [1] - 152:12 blue [6] - 141:21, 152:19, 154:13, 187:19, 209:12, 296:5 board [1] - 271:13 **body** [5] - 85:15, 141:3, 142:11, 142:19 boilerplate [6] - 195:25, 196:1, 196:9, 196:11, 196:15, 197:21 boils [2] - 186:8, 275:2

208:4, 208:19, 214:10, 224:23, 262:17

279:6

Byron's [22] - 88:9, 110:16, 117:3,

BOND [1] - 81:21 Bond [2] - 80:10, 81:21 boom [1] - 304:11 bore [1] - 164:25 bottom [5] - 86:6, 93:20, 183:4, 183:5, 311:9 box [1] - 85:7 Bracken [2] - 299:23, 300:7 Bracken's [1] - 301:21 bracket [8] - 107:10, 107:17, 107:18, 107:20, 107:21, 108:2, 169:12, 170:19 brain [2] - 253:25, 281:3 brake [1] - 297:18 branch [1] - 301:15 branches [1] - 294:2 brand [3] - 267:19, 267:21, 268:13 Brandenburg [23] - 84:25, 87:3, 88:18, 91:13, 92:2, 94:2, 118:15, 119:22, 119:23, 120:3, 120:11, 120:13, 143:16, 143:19, 144:7, 144:15, 220:17, 252:13, 252:25, 265:15, 274:24, 279:11 Brandenburg's [5] - 92:6, 93:11, 143:17, 222:4, 222:15 Brandt [1] - 148:22 breach [1] - 296:15 break [3] - 185:1, 228:21, 253:23 Bressler [1] - 119:12 Brian [3] - 80:2, 81:10, 284:7 brief [30] - 82:8, 93:15, 94:1, 97:14, 109:2, 113:18, 120:10, 123:23, 125:7, 137:21, 141:7, 147:17, 150:9, 151:11, 151:24, 162:21, 167:7, 190:24, 219:25, 232:11, 248:5, 248:7, 258:13, 265:18, 265:22, 266:16, 267:14, 274:16, 285:16, 302:8 briefed [2] - 140:25, 142:15 briefing [36] - 89:23, 90:7, 92:7, 99:8, 110:17, 115:3, 121:18, 121:21, 124:15, 135:20, 140:8, 142:9, 142:16, 160:22, 165:3, 165:6, 165:18, 168:4, 172:2, 186:12, 187:12, 193:17, 196:24, 202:17, 204:18, 205:25, 210:9, 219:14, 219:22, 220:5, 248:18, 265:16, 266:15, 286:16, 288:5, 288:22 briefly [9] - 83:16, 109:6, 109:22, 187:14, 264:1, 278:12, 297:24, 309:18, 311:23 bring [3] - 126:18, 126:20, 224:22 bringing [1] - 263:11 brings [3] - 120:22, 133:10, 243:19 broad [7] - 91:23, 92:13, 114:7, 117:10, 219:5, 232:1, 284:13 broaden [1] - 196:2 broader [11] - 112:3, 115:20, 116:4, 116:11, 117:24, 117:25, 186:17, 190:1, 247:5, 251:23, 259:11 broadly [2] - 117:19, 280:5 broken [2] - 311:6, 311:12

brought [8] - 205:8, 206:22, 207:21,

BROW [1] - 81:22 Brow [2] - 80:9, 81:22 Brunette [7] - 80:5, 81:13, 82:20, 83:7, 228:22, 272:1, 283:25 **BRUNETTE** [40] - 81:13, 83:8, 83:14, 84:7, 89:5, 89:10, 89:16, 90:4, 90:15, 90:23, 91:3, 91:6, 93:1, 95:6, 95:10, 95:18, 95:21, 96:7, 115:10, 137:15, 137:19, 138:11, 139:15, 139:18, 232:11, 237:22, 238:1, 238:10, 238:15, 238:19, 243:4, 243:12, 246:8, 254:5, 266:1, 272:19, 278:11, 278:14, 278:17, 284:2 buckets [1] - 111:25 build [4] - 107:6, 143:9, 144:11, 199:20 building [1] - 107:7 built [4] - 104:13, 104:24, 107:17, 287:4 bullet [3] - 181:11, 182:24, 264:23 bullets [1] - 257:11 bumps [1] - 242:16 bunch [3] - 81:17, 241:7, 290:10 burden [31] - 99:9, 99:11, 99:14, 99:18, 99:20, 128:17, 128:18, 128:19, 148:15, 156:5, 156:7, 156:18, 160:2, 164:3, 164:8, 164:25, 167:1, 177:14, 183:15, 193:10, 193:11, 193:12, 239:11, 239:16, 245:2, 270:15, 270:22, 271:1, 274:1, 286:9, 312:1 burden-shifting [1] - 239:11 burdens [2] - 193:17, 244:23 buried [1] - 123:19 burned [1] - 103:24 bushing [28] - 85:18, 85:23, 86:2, 87:6, 87:9, 87:10, 114:10, 114:12, 228:3, 229:2, 230:1, 230:3, 230:6, 230:9, 230:10, 230:11, 230:13, 235:15, 236:6, 236:21, 236:22, 237:4, 237:16, 237:20, 238:7, 250:22, 270:1 bushings [1] - 82:7 business [18] - 79:7, 79:7, 104:5, 129:3, 131:20, 132:4, 132:6, 132:8, 135:4, 135:12, 135:18, 136:5, 138:6, 149:3, 149:4, 212:12, 263:6, 304:4 bypassed [1] - 134:12 Byron [70] - 84:19, 108:9, 110:1, 111:4, 111:5, 116:24, 118:7, 120:16, 143:14, 161:4, 161:13, 161:21, 161:23, 162:4, 162:17, 162:19, 163:10, 163:17, 163:21, 164:18, 166:14, 167:4, 167:14, 167:16, 167:23, 170:7, 170:16, 171:6, 171:12, 171:18, 171:21, 172:3, 172:4, 172:17, 173:11, 173:18, 174:6, 174:8, 174:25, 175:6, 186:20, 186:21, 193:8, 193:19, 193:22, 194:7, 195:2, 195:4, 195:22, 197:11, 220:14, 220:15, 220:21, 221:8, 222:11, 237:1, 240:1, 244:15, 246:3, 246:4, 246:10, 252:8, 253:1,

253:16, 264:4, 264:6, 265:9, 271:12,

120:20, 163:5, 164:4, 173:13, 173:25, 194:14, 229:5, 237:12, 244:21, 245:22, 251:24, 252:3, 274:2, 274:3, 274:6, 274:20, 275:23, 277:6, 279:13 C C297 [2] - 296:7, 296:17 CAD [7] - 102:5, 102:7, 102:8, 103:12, 159:11, 176:13, 229:15 calendar [4] - 137:1, 147:7, 147:11, 147:14 calendars [2] - 147:10, 282:19 caliber [1] - 173:22 California [6] - 128:7, 202:18, 205:24, 257:21, 272:1, 272:8 cam [188] - 82:6, 85:19, 85:21, 86:2, 86:20, 88:22, 88:24, 89:7, 89:15, 89:17, 89:19, 89:20, 89:25, 90:14, 92:22, 94:24, 94:25, 95:1, 95:7, 96:11, 97:1, 100:15, 103:8, 104:11, 106:6, 106:10, 106:15, 106:16, 108:6, 108:15, 112:8, 112:9, 112:12, 112:13, 112:22, 114:14, 117:10, 117:13, 117:14, 117:15, 117:16, 117:17, 117:19, 145:11, 145:25, 146:6, 146:13, 146:25, 148:9, 148:13, 152:9, 152:13, 152:18, 154:12, 154:14, 154:15, 154:20, 154:21, 154:24, 155:12, 157:20, 161:10, 167:8, 171:1, 174:11, 183:1, 185:17, 189:1, 189:2, 189:3, 189:4, 189:5, 189:9, 189:11, 189:12, 189:15, 189:16, 189:24, 190:2, 190:16, 191:9, 191:19, 191:20, 191:22, 191:23, 192:1, 192:24, 194:18, 195:1, 197:4, 198:1, 198:7, 198:10, 198:12, 198:13, 198:14, 198:24, 198:25, 199:1, 199:2, 200:2, 200:10, 200:19, 202:25, 206:10, 210:20, 211:25, 218:18, 224:6, 224:9, 226:20, 228:4, 229:2, 230:13, 230:25, 231:1, 231:2, 231:4, 231:14, 231:15, 231:16, 231:18, 231:19, 231:20, 232:1, 232:6, 236:3, 236:4, 236:7, 236:11, 236:14, 236:15, 236:16, 236:17, 236:18, 236:22, 236:24, 237:5, 237:6, 237:16, 240:12, 241:19, 241:23, 242:4, 243:17, 248:15, 248:19, 249:1, 250:23, 250:25, 268:22, 269:6, 269:10, 269:12, 269:13, 269:16, 269:17, 269:21, 273:4, 273:6, 273:7, 273:9, 274:5, 275:3, 275:4, 276:23, 276:25, 277:7, 277:20, 277:23, 277:24, 277:25, 278:19, 279:22, 280:14 camera [12] - 136:19, 136:24, 138:6, 147:2, 147:5, 147:7, 246:5, 246:11, 274:8, 274:9, 274:18, 277:7

```
cameras [4] - 136:5, 211:19, 264:10,
                                              219:12, 220:6, 220:10, 222:14,
                                              222:18, 223:14, 231:25, 235:16,
 264.13
                                              237:7, 239:12, 241:7, 249:18, 250:19,
cams [2] - 248:21, 279:11
cannot [33] - 116:15, 119:5, 128:18,
                                              251:3, 254:9, 254:11, 256:1, 256:3,
 128:19, 143:7, 144:8, 147:15, 149:24,
                                              256:4, 256:5, 256:21, 257:15, 257:20,
 150:17, 155:23, 156:18, 158:5, 160:7,
                                              257:21, 258:15, 262:13, 265:24,
                                              267:25, 271:9, 271:11, 272:1, 272:4,
 165:12, 166:24, 179:9, 180:16,
                                              272:8, 276:1, 276:2, 276:20, 281:8,
 180:20, 183:19, 184:1, 184:2, 185:6,
                                              285:23, 286:16, 286:21, 287:9,
 215:3, 220:25, 225:5, 249:21, 250:8,
                                              288:19, 288:20, 289:8, 289:20,
 253:4, 261:23, 265:13, 273:20, 276:5,
 287:21
                                              289:21, 290:1, 290:4, 291:13, 291:21,
                                              293:24, 297:19, 297:25, 298:1, 298:4,
cap [3] - 273:3, 281:9, 281:22
                                              298:18, 301:2, 303:2, 304:1, 304:13,
capable [1] - 171:18
                                              304:20, 307:7, 308:2, 308:11, 308:16,
caps [3] - 250:2, 250:13, 298:11
                                              310:2, 311:7
car [7] - 169:18, 242:16, 242:17, 242:20,
                                             cases [36] - 96:2, 98:9, 99:5, 115:2,
 243:1, 243:7, 243:8
                                              116:14, 121:17, 126:9, 135:19, 160:6,
card [1] - 302:22
                                              161:19, 165:19, 165:20, 168:3,
care [3] - 117:9, 124:9, 255:17
                                              168:19, 168:22, 169:6, 169:7, 169:9,
Carolina [1] - 288:20
                                              169:23, 171:17, 171:20, 175:1,
Carotek [31] - 121:18, 121:22, 122:5,
                                              186:12, 196:24, 241:10, 261:3, 261:7,
 122:14, 123:4, 123:5, 123:8, 123:13,
                                              275:20, 279:17, 288:5, 288:22,
 123:22, 124:4, 124:5, 124:8, 124:21,
                                              288:24, 295:20, 297:24, 305:25,
 215:19, 216:6, 216:10, 216:14, 254:9,
                                              309.21
 254:20, 254:22, 255:5, 255:8, 255:17,
                                             casimir [1] - 80:9
 255:18, 255:21, 256:14, 256:21,
                                             CASIMIR [36] - 81:16, 83:5, 150:7,
 257:2, 259:18
                                              150:10, 151:7, 151:10, 151:13,
carried [2] - 148:15, 164:8
                                              155:22, 176:11, 176:22, 177:2,
carries [1] - 302:15
                                              184:19, 199:18, 213:3, 213:11,
carry [1] - 309:12
                                              213:15, 213:17, 214:24, 218:1,
carve [1] - 261:10
                                              222:23, 227:22, 228:22, 229:15,
carve-out [1] - 261:10
                                              229:22, 267:14, 267:17, 268:8,
carved [1] - 189:23
                                              268:12, 268:16, 272:20, 280:25,
Case [1] - 81:6
                                              281:5, 283:5, 283:16, 292:14, 313:5
case [200] - 82:1, 99:7, 103:3, 104:12,
                                             Casimir [3] - 80:10, 81:16, 282:5
 107:3, 107:15, 108:19, 110:5, 110:6,
                                             catalog [6] - 224:2, 224:6, 224:7, 227:6,
 113:8, 113:23, 114:3, 114:4, 118:22,
                                              268:12, 300:4
 119:9, 121:18, 121:19, 121:22, 122:8,
                                             catch [1] - 192:16
 123:6, 123:13, 124:14, 125:13,
                                            categories [5] - 168:11, 171:11, 175:9,
 125:14, 128:6, 129:6, 129:7, 131:10,
                                              241:6, 243:22
 131:11, 131:12, 131:22, 135:8,
                                             Categories [1] - 169:4
 135:24, 139:13, 140:7, 141:6, 153:1,
                                            category [1] - 168:5
 156:3, 156:12, 157:13, 157:18, 158:7,
                                             Category [21] - 168:16, 168:19, 168:21,
 160:8, 160:14, 161:1, 161:16, 161:22,
                                              169:1, 169:5, 169:17, 169:19, 169:22,
 162:9, 162:23, 164:3, 164:14, 165:1,
                                              170:6, 171:11, 171:12, 171:17,
 165:4, 165:21, 165:24, 166:3, 166:6,
                                              171:20, 172:1, 173:12, 174:5, 174:7,
 166:17, 166:18, 166:19, 168:4, 168:6,
                                              175:1, 175:5, 175:9, 241:15
 168:9, 169:3, 169:7, 169:12, 169:13,
                                             caused [2] - 262:9, 263:5
 170:1, 170:18, 172:5, 172:10, 172:12,
                                             causes [2] - 86:3, 259:9
 176:15, 178:14, 180:9, 182:15,
                                            caution [1] - 121:13
 186:14, 187:1, 187:4, 187:5, 187:14,
                                             CCS [5] - 235:16, 235:19, 235:21,
 187:16, 188:4, 188:11, 189:21, 190:8,
                                              236:24
 190:12, 190:15, 191:5, 191:15, 192:6,
                                            CD [8] - 102:9, 103:3, 103:4, 103:6,
 193:3, 193:16, 194:3, 194:4, 194:5,
                                              103:14, 103:17, 103:23, 247:9
 195:15, 196:8, 196:12, 196:14,
                                            cease [2] - 133:12, 134:8
 196:19, 197:21, 198:21, 200:21,
 201:2, 202:18, 203:6, 204:13, 204:22,
                                             Celotex [1] - 245:1
 205:24, 206:2, 207:15, 210:17,
                                             Celotex-type [1] - 245:1
 212:14, 212:16, 213:23, 214:8, 215:9,
                                             Center [1] - 80:14
 215:10, 215:19, 215:20, 215:25,
                                             centers [2] - 121:16, 123:11
 216:3, 216:6, 216:8, 216:10, 218:4,
                                             Central [5] - 202:17, 205:24, 257:21,
```

century [1] - 186:13 certain [13] - 89:5, 111:21, 133:8, 148:20, 149:14, 186:7, 196:16, 220:12, 238:16, 287:21, 290:19, 304:3 certainly [25] - 83:2, 85:9, 88:8, 88:13, 97:4, 102:20, 102:24, 105:16, 121:14, 125:6, 130:24, 132:17, 139:2, 145:22, 149:6, 196:7, 196:18, 208:9, 235:5, 243:4, 245:9, 249:7, 277:11, 282:4, 291.11 certificate [71] - 83:24, 121:9, 121:23, 122:8, 122:10, 122:15, 122:22, 122:23, 123:1, 123:2, 123:3, 123:4, 123:8, 124:1, 124:15, 124:22, 124:23, 124:24, 125:10, 150:24, 186:1, 200:21, 200:22, 200:25, 201:17, 201:21, 203:17, 204:1, 205:7, 205:12, 205:13, 205:17, 208:18, 213:24, 215:1, 215:3, 215:11, 215:12, 215:17, 216:2, 217:4, 217:6, 217:8, 217:20, 217:23, 253:18, 253:20, 254:7, 254:17, 254:25, 255:5, 255:10, 255:22, 255:24, 256:2, 256:7, 256:11, 256:12, 256:15, 256:17, 256:20, 256:22, 256:24, 257:5, 259:13, 259:15, 260:5, 260:12, 260:23, 261:1, 261:4 certificates [3] - 186:5, 216:16, 257:13 certified [2] - 294:25, 314:8 certify [1] - 314:3 CFO [1] - 106:3 chain [1] - 169:8 Chair [5] - 131:10, 131:18, 135:3, 135:15, 135:16 **challenged** [1] - 182:16 challenges [2] - 171:23, 172:6 challenging [1] - 109:14 chance [2] - 108:2, 151:23 change [12] - 87:23, 102:19, 103:9, 116:18, 133:1, 134:1, 134:14, 230:19, 237:7, 247:9, 262:11 changed [12] - 132:12, 132:19, 132:20, 175:6, 230:3, 242:3, 246:14, 261:18, 262:16, 263:1, 296:17 changes [10] - 86:21, 116:17, 119:20, 147:11, 169:25, 170:3, 171:25, 175:4, 196:3 changing [3] - 147:9, 164:19, 238:19 chart [1] - 303:19 check [2] - 180:6 checked [1] - 137:1 chemical [4] - 116:13, 116:16, 116:18, 116:19 chemicals [1] - 116:16 chemist [1] - 116:15 choice [2] - 259:2, 259:5 choose [1] - 243:11 chose [2] - 260:16, 304:23 circle [2] - 85:12, 154:22

271:25, 272:7

circled [1] - 152:3 Circuit [30] - 98:12, 107:4, 107:16, 113:22, 114:2, 115:22, 116:6, 119:3, 119:10, 123:14, 124:12, 125:3, 127:5, 131:11, 131:16, 131:17, 132:2, 135:16, 193:23, 194:4, 196:8, 196:12, 251:2, 255:12, 257:15, 258:7, 275:20, 276:12, 277:16, 279:4 Circuit's [3] - 118:20, 195:20, 244:4 circumstance [1] - 262:16 circumstances [9] - 132:10, 165:25, 166:1, 166:20, 167:21, 241:8, 241:17, 263:1, 307:4 circumstantial [10] - 98:6, 98:8, 98:11, 98:19, 98:22, 98:24, 101:24, 102:13, 102:20, 280:18 citation [4] - 162:20, 169:8, 181:11, 207:4 citations [6] - 100:22, 101:9, 120:10, 175:17, 207:1, 219:23 cite [8] - 140:7, 165:21, 166:17, 194:3, 215:19, 239:3, 246:11, 256:25 cited [24] - 92:7, 99:8, 108:20, 113:17, 124:15, 162:20, 166:17, 168:4, 169:7, 169:8, 186:12, 186:20, 193:16, 202:17, 205:24, 215:9, 248:17, 249:18, 251:4, 273:25, 285:24, 286:16, 288:5, 293:25 cites [11] - 108:17, 112:25, 116:14, 141:6, 195:2, 195:22, 197:16, 240:25, 256:4, 264:5, 271:10 citing [4] - 101:8, 123:14, 165:19, 264:4 civilians [1] - 295:3 CI [1] - 286:21 Claim [45] - 89:19, 91:7, 94:8, 112:7, 112:12, 112:15, 141:14, 141:24, 152:22, 152:24, 153:2, 153:5, 153:6, 153:20, 154:5, 154:8, 155:10, 155:13, 171:4, 187:13, 188:13, 188:16, 190:8, 228:14, 228:15, 231:2, 231:20, 231:22, 232:25, 233:1, 233:5, 233:6, 233:7, 233:9, 233:10, 233:11, 233:13, 233:16, 234:25, 235:1, 235:2 claim [168] - 84:11, 84:16, 87:18, 88:1, 88:15, 88:21, 89:18, 92:23, 93:2, 93:24, 94:7, 95:3, 96:3, 96:5, 97:22, 98:14, 98:15, 98:19, 101:3, 111:14, 112:19, 112:22, 113:10, 113:20, 114:6, 114:10, 114:11, 115:12, 115:19, 117:10, 117:25, 121:24, 121:25, 122:10, 122:11, 122:16, 122:23, 123:8, 123:12, 123:16, 123:18, 124:16, 125:11, 126:6, 126:14, 132:22, 139:10, 140:11, 140:12, 140:22, 141:3, 141:7, 141:15, 142:8, 142:15, 142:19, 143:4, 144:5, 151:18, 151:22, 151:25, 152:15, 152:21, 153:11, 153:19, 155:13, 157:12, 162:12, 170:5, 170:17, 185:19, 186:9, 186:14, 188:2, 188:9,

188:12, 188:22, 191:16, 193:14, 198:24, 198:25, 199:5, 199:6, 200:23, 201:12, 201:20, 201:23, 202:7, 203:13, 203:15, 203:18, 204:2, 204:21, 204:23, 205:3, 205:8, 205:21, 206:3, 206:5, 207:4, 207:19, 208:16, 211:13, 211:23, 213:19, 215:4, 215:8, 215:15, 215:16, 215:23, 216:4, 216:11, 217:1, 217:11, 219:8, 219:9, 219:17, 220:1, 220:3, 220:4, 228:9, 228:16, 228:18, 230:2, 230:24, 231:4, 231:6, 231:8, 233:18, 234:21, 235:11, 235:18, 235:23, 235:24, 236:1, 236:2, 249:19, 249:20, 254:14, 255:1, 255:7, 255:14, 255:22, 256:2, 256:9, 256:10, 256:13, 256:24, 259:11, 260:6, 260:8, 260:23, 263:11, 268:18, 269:1, 269:22, 270:5, 276:14, 276:16, 278:4, 278:18, 278:22, 279:25, 288:6 claimed [25] - 96:13, 97:1, 99:3, 112:7, 114:10, 124:5, 155:11, 170:14, 175:25, 185:9, 186:22, 187:10, 187:16, 188:6, 188:7, 198:24, 249:24, 250:2, 250:4, 251:20, 268:22, 273:6, 273:8, 277:23 claiming [9] - 124:2, 153:7, 157:12, 250:1, 260:14, 263:3, 305:25, 307:8 Claims [24] - 88:21, 89:18, 112:2, 112:5, 112:16, 114:19, 114:20, 190:13, 190:15, 190:20, 198:6, 198:12, 230:24, 232:1, 232:4, 236:19, 249:17, 273:13, 287:9, 287:10, 287:11, 287:12, 289:14, 302:18 claims [100] - 90:19, 91:7, 94:24, 99:7, 109:16, 111:14, 111:25, 112:3, 112:4, 113:16, 114:23, 115:20, 116:3, 117:24, 123:17, 132:9, 135:23, 140:5, 140:10, 140:18, 140:19, 141:3, 141:12, 142:2, 142:11, 142:21, 142:24, 150:18, 150:20, 150:21, 151:18, 151:21, 152:23, 152:25, 153:22, 157:13, 158:4, 158:6, 158:8, 167:15, 167:16, 176:4, 177:8, 184:5, 185:6, 185:9, 185:12, 185:14, 186:15, 186:17, 187:21, 188:3, 188:7, 190:1, 190:5, 190:12, 190:21, 191:1, 193:4, 194:12, 197:9, 197:24, 198:5, 198:6, 198:9, 198:18, 198:23, 199:4, 199:7, 199:8, 199:12, 218:20, 219:4, 219:6, 219:18, 228:7, 228:10, 230:17, 241:19, 245:5, 250:6, 250:20, 250:21, 251:6, 251:17, 268:1, 273:13, 276:18, 278:1, 278:6, 280:4, 284:22, 285:1, 292:6, 306:5 clarification [3] - 110:24, 166:21, 172.17 clarified [3] - 116:6, 166:19, 172:22 clarifies [2] - 93:6, 166:20

clarify [5] - 166:5, 231:24, 234:12,

304:19, 305:7

clarity [1] - 131:7 classic [3] - 204:6, 212:16 clause [13] - 284:18, 285:2, 285:3, 285:5, 285:7, 285:18, 286:5, 287:4, 291:24, 294:6, 303:4, 303:23 clean [1] - 254:15 clear [60] - 87:15, 88:6, 93:11, 97:2, 99:10, 99:12, 99:20, 100:8, 101:12, 105:7, 106:14, 106:16, 111:2, 118:16, 128:8, 128:17, 128:18, 129:16, 130:19, 131:5, 131:10, 131:22, 132:7, 143:4, 145:8, 148:16, 149:25, 160:7, 165:9, 172:7, 181:21, 193:10, 195:19, 196:8, 203:12, 215:20, 224:21, 227:17, 231:17, 235:21, 236:3, 244:24, 248:9, 248:11, 255:14, 257:15, 262:5, 262:8, 262:12, 265:21, 266:25, 271:10, 279:18, 285:24, 289:20, 292:17, 295:16, 298:18 clearer [1] - 255:15 clearly [9] - 134:18, 167:22, 170:6, 187:23, 222:1, 224:18, 261:14, 262:21, 302:22 cleave [1] - 282:7 CLERK [2] - 81:3, 282:24 clerk [2] - 274:11, 282:25 click [7] - 115:6, 115:14, 115:21, 115:24, 116:1, 116:2, 279:19 clicked [1] - 311:1 client [3] - 81:11, 299:14, 300:25 clock [1] - 147:12 close [2] - 119:6, 119:8 closed [1] - 250:1 closed-ended [1] - 250:1 closely [1] - 249:15 closer [2] - 233:7, 246:8 closest [2] - 120:6 code [4] - 303:25, 304:1, 311:4, 311:13 coexist [1] - 225:16 coffee [1] - 253:25 Coleman [1] - 143:18 colleague [1] - 181:16 colleagues [1] - 232:15 Collins [2] - 194:4, 276:1 color [1] - 154:13 colored [2] - 152:7, 187:19 colors [1] - 152:17 column [2] - 303:18, 312:5 combinations [2] - 196:14, 196:17 coming [7] - 97:23, 148:25, 164:24, 191:18, 264:16, 264:20, 300:7 comment [1] - 212:4 commercial [8] - 172:4, 223:18, 224:1, 225:23, 242:1, 246:2, 287:1, 289:24 commercialization [3] - 166:10, 172:8, commercialized [1] - 243:5 commercializing [1] - 227:13 commercially [1] - 241:21 common [4] - 152:1, 168:13, 221:13,

243:8 communicated [2] - 240:11, 240:14 communication [2] - 175:19, 210:25 communications [5] - 138:21, 202:7, 214:4, 225:25, 257:18 companies [1] - 206:10 company [5] - 100:13, 105:24, 130:16, 180:2, 221:19 compare [3] - 135:14, 170:18, 170:24 compared [4] - 116:13, 116:20, 136:23, 173:16 compelled [1] - 147:12 compelling [1] - 260:3 competent [1] - 292:2 competitor's [2] - 250:14, 250:15 complaining [1] - 293:6 complains [1] - 294:9 Complaint [4] - 204:4, 206:6, 208:17, 208:19 complete [4] - 100:20, 160:9, 173:7, 281:15 completed [2] - 82:22, 281:25 completely [3] - 176:13, 230:5, 244:3 complexities [1] - 173:15 complied [1] - 255:15 comply [2] - 188:6, 310:8 complying [1] - 135:13 component [17] - 151:17, 153:16, 153:20, 154:5, 154:7, 154:13, 154:16, 156:21, 156:24, 162:7, 167:9, 191:22, 213:5, 229:1, 233:19, 268:24, 269:25 components [14] - 153:17, 153:23, 161:11, 162:13, 167:18, 171:6, 174:12, 176:14, 184:12, 222:10, 228:11, 233:23, 234:19, 269:20 comprises [1] - 113:17 comprising [4] - 141:19, 198:23, 232:6, 235:11 computer [5] - 81:25, 102:23, 252:16, 264:14, 265:4 conceded [1] - 198:3 concept [10] - 215:10, 232:5, 236:1, 284:14, 284:15, 285:19, 306:17, 306:18, 308:23, 308:25 conception [11] - 102:12, 156:14, 156:21, 156:22, 156:23, 157:3, 179:13, 271:16, 271:18 concepts [3] - 157:6, 272:2, 281:19 conceptually [1] - 287:24 concern [3] - 293:6, 293:17, 311:6 concerned [1] - 298:4 concerns [1] - 125:4 conclude [6] - 130:21, 194:23, 223:22, 227:16, 277:18, 292:22 concluded [2] - 93:6, 180:25 concludes [3] - 106:9, 111:12, 232:8 conclusion [15] - 93:20, 118:8, 170:12, 170:13, 194:16, 195:6, 195:13, 195:23, 197:13, 203:23, 248:12, 262:6, 266:21, 276:10, 279:8

conclusions [4] - 93:5, 249:11, 252:7, 305:16 conclusively [1] - 229:11 conclusory [5] - 193:23, 194:1, 274:7, 275:24, 276:4 concrete [1] - 159:17 condition [1] - 168:18 conditions [8] - 168:15, 168:17, 168:20, 168:21, 171:19, 241:13, 243:24, 311:9 conduct [33] - 127:6, 127:8, 130:20, 131:18, 131:20, 136:3, 204:12, 204:13, 204:15, 204:19, 204:20, 206:7, 206:24, 207:17, 207:18, 211:16, 212:25, 213:4, 213:7, 213:12, 213:13, 257:10, 258:13, 261:15, 261:23, 261:24, 263:6, 303:25, 304:1, 311:4, 311:13 conducted [2] - 176:16, 180:8 confer [2] - 82:3, 282:25 conference [1] - 147:10 conferred [1] - 82:16 confidential [1] - 149:19 confirm [1] - 108:12 confirmed [2] - 100:21, 101:10 confirming [2] - 244:7 confirms [5] - 104:13, 104:15, 105:5, 108:14, 246:25 conformed [1] - 314:7 confused [2] - 123:25, 166:5 Congress [1] - 293:24 connected [3] - 155:2, 162:13, 233:3 connection [1] - 305:11 connectivity [2] - 154:24, 155:16 connector [1] - 155:7 connects [2] - 155:5, 174:11 consent [42] - 284:14, 284:15, 284:20, 284:23, 285:2, 285:13, 285:18, 285:20, 286:7, 286:17, 287:6, 287:8, 287:17, 287:19, 288:1, 288:17, 289:5, 289:8, 289:20, 290:13, 290:21, 291:5, 291:17, 291:18, 292:3, 294:4, 294:6, 294:8, 295:23, 295:25, 297:4, 298:19, 304:7, 304:12, 304:18, 305:23, 307:1, 307:3, 307:22, 307:23, 309:8 consenting [1] - 288:2 consequence [2] - 259:10, 259:11 consider [6] - 87:15, 98:2, 109:4, 133:20, 135:21, 194:10 considerably [1] - 86:9 considerations [1] - 306:11 considered [5] - 135:10, 149:14, 195:13, 196:22, 225:5 consistent [15] - 98:25, 102:25, 109:1, 109:13, 109:18, 124:14, 147:15, 224:25, 227:12, 249:6, 249:9, 249:13, 260:4, 269:22, 279:13 constitute [1] - 245:19 constitutes [1] - 241:9 construction [35] - 84:11, 88:7, 88:9, 88:15, 92:24, 93:2, 93:13, 96:3, 96:5,

117:10, 117:25, 140:22, 141:7, 142:9, 142:15, 168:24, 191:16, 191:18, 191:21, 219:10, 220:2, 220:4, 228:9, 230:2, 231:6, 231:8, 236:2, 268:19, 269:1, 270:5, 276:14, 276:20, 277:5, 279:25 construe [1] - 90:4 construed [8] - 89:8. 117:19. 276:23. 278:19, 280:1, 286:14, 305:19, 305:20 consultant [1] - 119:16 contact [2] - 230:14, 300:9 contain [1] - 148:21 contained [2] - 231:13, 312:14 containing [1] - 148:19 contains [1] - 228:17 contemporaneous [4] - 99:2, 104:15, 104:16, 149:5 contemporaneously [3] - 108:15, 108:24, 111:9 contemporary [1] - 208:2 contending [1] - 191:22 contends [2] - 121:1, 145:4 content [3] - 224:17, 225:10, 247:9 contentions [2] - 204:7, 228:2 contesting [1] - 89:24 context [17] - 92:14, 126:6, 132:23, 148:23, 151:2, 153:8, 170:3, 209:9, 209:10, 209:11, 209:15, 209:17, 209:25, 228:9, 264:5, 285:10, 292:24 continuation [1] - 81:4 continue [2] - 133:9, 190:7 **CONTINUED** [1] - 79:15 continues [3] - 133:11, 153:11, 206:7 continuing [2] - 131:8, 300:20 contract [37] - 226:24, 238:8, 281:25, 282:3, 283:15, 284:16, 286:2, 286:6, 286:9, 287:5, 288:5, 291:25, 294:10, 295:5, 295:12, 296:15, 296:21, 297:13. 299:25. 300:2. 300:11. 300:15, 300:17, 302:17, 302:25, 303:5, 303:12, 305:10, 306:19, 309:10, 309:23, 309:25, 310:9, 310:25, 311:7, 312:6 contract's [1] - 285:4 contracted [1] - 287:20 contracting [3] - 288:9, 288:12, 307:21 contractor [36] - 284:9, 290:15, 290:17, 290:19, 290:21, 291:15, 293:1, 295:10, 295:13, 296:1, 299:20, 300:13, 300:18, 301:4, 302:17, 302:24, 303:9, 303:24, 303:25, 306:2, 306:5, 306:7, 306:12, 306:13, 306:14, 307:10, 307:17, 307:18, 308:1, 309:9, 310:1, 311:5, 311:8, 312:16 contractor's [1] - 308:6 contractors [3] - 286:23, 290:11, 300:3 contracts [15] - 290:9, 292:6, 294:5. 295:4, 296:14, 297:10, 301:22, 302:23, 303:16, 308:10, 312:4, 312:11, 312:12, 312:13, 312:16

contractual [1] - 311:18 contradicting [1] - 165:14 contradiction [2] - 110:21, 110:23 contradictory [5] - 164:19, 165:12, 165:23, 168:1, 277:4 contrary [8] - 121:6, 162:22, 162:23, 251:3, 256:21, 257:2, 279:5, 279:16 contrast [1] - 256:1 contrasted [1] - 284:14 contrasts [1] - 167:10 contributed [1] - 216:10 control [19] - 153:21, 154:6, 154:11, 155:17, 174:10, 233:17, 233:19, 233:24, 233:25, 234:6, 234:9, 234:17, 234:22, 242:6, 243:18, 244:18, 269:9, 269:19 controlling [1] - 239:3 controversial [1] - 114:2 convenient [1] - 215:6 conversation [9] - 88:18, 89:4, 89:6, 90:13, 90:17, 90:18, 92:7, 136:11, 260:17 convey [2] - 206:17, 210:22 conveying [2] - 206:23, 208:22 convince [1] - 143:3 convinced [1] - 229:13 convincing [11] - 99:12, 99:21, 100:8, 128:17, 128:19, 143:4, 145:8, 145:9, 148:16, 149:25, 227:17 Cooper [3] - 98:18, 108:19, 109:7 copies [3] - 83:13, 151:6, 292:15 copy [5] - 83:9, 83:11, 103:15, 179:25, 274:12 core [1] - 294:3 corners [6] - 195:18, 265:11, 276:5, 276:10, 277:13, 277:17 corollary [2] - 173:23, 174:4 Corp [1] - 193:16 correct [21] - 89:16, 124:11, 124:25, 134:15, 171:6, 192:4, 200:22, 204:21, 206:3, 207:18, 208:15, 213:15, 216:23, 217:17, 217:19, 251:25, 279:7, 305:13, 308:19, 312:15, 314:4 corrected [6] - 121:8, 124:9, 207:24, 216:15, 259:20, 260:13 correcting [1] - 261:19 correction [78] - 83:24, 121:10, 121:23, 122:8, 122:10, 122:16, 122:22, 122:23, 123:1, 123:2, 123:3, 123:4, 123:8, 124:1, 124:10, 124:16, 124:22, 124:23, 124:24, 125:1, 125:11, 150:24, 186:2, 186:5, 200:21, 200:22, 200:25, 201:17, 201:21, 203:18, 204:1, 205:1, 205:7, 205:11, 205:12, 205:13, 205:17, 208:18, 213:24, 215:2, 215:4, 215:11, 215:12, 215:18, 216:2, 216:25, 217:4, 217:6, 217:9, 217:21, 217:23, 253:18, 253:21, 254:7, 254:17, 254:25, 255:6, 255:11, 255:23, 256:2, 256:7, 256:11, 256:12,

256:16, 256:17, 256:21, 257:6, 306:20, 307:2, 307:7, 307:12, 307:24, 257:13, 259:13, 259:15, 260:6, 260:12, 260:23, 261:2, 261:4, 271:25 corrections [1] - 216:17 correctly [1] - 240:20 corroborate [7] - 97:21, 101:24, 102:6, 102:14, 159:19, 181:4, 280:19 corroborated [2] - 105:18, 239:7 corroborates [2] - 183:22, 241:3 corroborating [8] - 98:5, 98:13, 98:20, 104:2, 111:8, 160:17, 161:16, 239:6 corroboration [33] - 97:8, 97:11, 97:18, 97:24, 97:25, 98:10, 98:16, 98:18, 98:21, 99:6, 100:7, 101:21, 104:6, 104:20, 105:14, 106:24, 109:15, 160:5, 160:10, 175:24, 177:17, 177:25, 179:20, 179:21, 181:3, 183:20, 238:25, 239:9, 247:5, 248:1 cost [1] - 263:6 couched [1] - 129:11 counsel [22] - 81:7, 83:10, 114:4, 115:8, 127:20, 127:25, 128:1, 133:4, 209:22, 252:2, 252:5, 253:6, 260:18, 273:23, 274:10, 278:21, 279:7, 279:23, 292:10, 311:1, 311:13 Counsel [1] - 246:6 count [2] - 104:6, 219:9 counter [3] - 127:23, 264:7, 264:24 counter-sniper [2] - 264:7, 264:24 couple [9] - 89:13, 121:17, 126:8, 200:7, 200:16, 253:5, 254:1, 282:16, 288:23 coupled [1] - 169:18 course [13] - 84:11, 104:4, 107:7, 155:23, 223:14, 236:13, 249:21, 250:5, 285:13, 286:11, 289:9, 290:4, 290.20 COURT [130] - 79:1, 79:19, 80:18, 81:2, 81:17, 81:24, 82:5, 82:9, 82:25, 83:3, 83:6, 83:12, 84:6, 89:3, 89:9, 89:11, 90:3, 90:5, 90:22, 91:2, 91:5, 92:25, 95:4, 95:9, 95:17, 95:20, 96:6, 115:8, 137:6, 137:12, 137:18, 138:4, 139:11, 139:17, 150:6, 151:6, 151:8, 151:12, 155:21, 176:5, 176:21, 177:1, 184:15, 184:20, 184:22, 191:2, 191:12, 192:2, 192:7, 192:15, 199:15, 199:17, 212:23, 213:6, 213:13, 213:16, 214:23, 217:25, 222:22, 227:21, 228:21, 229:9, 229:21, 232:10, 232:13, 233:6, 234:5, 234:15, 237:19, 237:24, 238:7, 238:13, 238:18, 242:25, 243:6, 246:6, 253:23, 265:25, 267:12, 267:16, 268:7, 268:9, 268:15, 272:17, 272:22, 274:14, 278:8, 278:10, 278:13, 278:16, 280:22, 281:3, 281:17, 282:8, 282:15, 283:1, 283:7, 283:11, 283:20, 283:24, 292:12, 292:16, 295:4, 295:11,

296:20, 297:1, 299:13, 300:18,

301:18, 302:7, 302:9, 305:25, 306:9,

308:9, 308:17, 308:20, 308:24, 309:2, 309:4, 309:14, 311:22, 312:11, 312:21, 313:3, 313:7 Court [77] - 82:3, 83:11, 89:7, 91:17, 91:24, 92:2, 93:17, 95:2, 95:24, 96:4, 96:21. 105:8. 108:10. 109:4. 110:20. 111:6. 111:7. 111:11. 117:18. 119:15. 119:20, 122:5, 122:25, 124:7, 124:18, 125:7, 125:8, 125:23, 126:13, 130:20, 135:21, 135:25, 140:21, 141:1, 141:10, 142:9, 165:8, 186:13, 240:2, 249:14, 249:19, 253:5, 253:11, 254:22, 255:8, 255:17, 255:18, 255:21, 256:14, 257:4, 258:9, 265:21, 268:11, 271:9, 272:5, 273:11, 276:7, 276:23, 280:1, 282:25, 285:19, 287:9, 287:10, 287:11, 287:12, 289:13, 295:24, 298:4, 301:19, 302:18, 305:2, 305:14, 308:19, 310:11, 314:13 court [10] - 82:3, 128:2, 128:22, 129:8, 129:13, 148:21, 257:16, 282:20, 287:13, 287:15 Court's [8] - 93:15, 93:20, 117:10, 117:25, 276:20, 277:4, 277:5, 282:2 Courthouse [1] - 80:18 Courts [5] - 169:10, 298:2, 305:16, 309:24, 310:11 cover [2] - 193:5, 197:25 covered [9] - 190:20, 194:12, 196:24, 198:17, 230:12, 285:19, 294:6, 294:7, 297:8 covering [1] - 190:5 crack [2] - 107:14, 108:1 cracking [1] - 108:3 crafty [1] - 196:1 create [5] - 154:25, 165:12, 165:14, 166:24, 214:15 created [13] - 100:11, 102:7, 102:9, 102:15, 102:22, 103:17, 103:23, 103:24, 104:4, 168:5, 179:23, 247:11, 280:16 creating [3] - 103:14, 150:8, 162:14 credibility [1] - 247:20 credible [2] - 105:17, 210:10 credit [1] - 277:6 credulity [1] - 223:18 criteria [2] - 243:25, 291:17 critical [18] - 95:13, 96:16, 100:16, 112:4, 114:9, 127:2, 139:21, 140:25, 145:12, 150:2, 174:19, 233:15, 261:4, 262:18, 266:4, 278:18, 294:1 critically [6] - 84:24, 102:9, 121:21, 126:5, 130:9, 130:18 cross [24] - 81:4, 83:22, 84:1, 96:9, 99:17, 99:23, 120:23, 126:3, 128:8, 137:24, 152:17, 152:18, 178:1, 178:16, 178:22, 178:24, 179:8, 180:21, 181:20, 182:13, 184:10, 247:20, 248:11, 248:13

cross-exam [1] - 180:21 cross-examination [10] - 178:1, 178:16, 178:22, 178:24, 179:8, 181:20, 182:13, 184:10, 247:20, 248:11 cross-motions [6] - 81:4, 83:22, 99:23, 120:23, 128:8, 137:24 cross-move [1] - 126:3 cross-moved [1] - 96:9 cross-section [2] - 152:17, 152:18 crossed [2] - 147:8, 147:15 Crowther [2] - 80:17, 81:11 CRR [2] - 80:18, 314:12 crystal [2] - 160:7, 224:21 CSR [3] - 80:18, 314:12, 314:13 Ct [1] - 286:21 cup [1] - 253:25 curious [3] - 89:14, 221:10, 237:25 current [1] - 293:11 cursory [4] - 161:6, 220:2, 265:19, 270:5 curved [2] - 191:19, 276:25 custodian [1] - 104:3 customer [1] - 289:1 customers [1] - 289:23 cut [7] - 89:25, 90:9, 103:14, 136:11, 138:21, 237:11, 259:6 cuts [1] - 133:16

D

D.C [1] - 287:15 damage [1] - 162:8 damages [38] - 121:1, 125:21, 126:7, 126:14, 150:25, 202:11, 202:13, 202:15, 202:21, 205:8, 205:15, 205:24, 205:25, 208:17, 211:10, 212:13, 215:3, 215:6, 215:10, 215:12, 217:7, 258:10, 258:17, 259:4, 259:6, 259:9, 259:11, 272:7, 272:11, 272:13, 272:14, 281:10, 281:11, 287:14, 308:15, 308:17, 310:6 dark [3] - 153:10, 153:14, 155:4 data [4] - 103:5, 103:15, 105:25, 122:4 date [85] - 83:22, 96:7, 96:12, 96:19, 97:7, 97:12, 97:20, 99:14, 102:19, 103:9, 103:21, 104:1, 111:12, 124:25, 136:9, 137:3, 137:4, 138:7, 138:14, 138:20, 145:2, 145:4, 145:5, 145:13, 145:18, 147:6, 147:15, 150:2, 150:20, 156:2, 156:4, 156:5, 156:14, 156:16, 157:9, 157:24, 157:25, 158:5, 159:2, 159:16, 175:20, 175:25, 178:7, 180:17, 184:14, 185:10, 185:20, 186:4, 186:18, 188:10, 188:12, 188:23, 190:6, 193:12, 193:13, 199:10, 199:13, 203:19, 218:13, 218:15, 223:3, 223:11, 223:14, 223:16, 223:17, 226:9, 226:14, 226:16, 227:5, 231:24, 232:5, 238:20, 267:5, 270:10, 270:16, 270:21, 273:1,

278:5, 280:20, 282:19, 312:22 **DATE** [1] - 314:12 dated [6] - 102:5, 102:17, 103:8, 147:6, 180:7. 247:8 dates [28] - 104:14, 136:6, 136:22, 136:23, 145:23, 147:1, 147:3, 147:4, 147:8, 147:13, 147:14, 157:16, 157:22, 178:23, 179:2, 179:5, 180:2, 181:13, 183:21, 185:22, 186:13, 211:19, 218:12, 218:14, 223:3, 227:10, 227:15, 227:19 David [2] - 80:9, 81:16 DAVIS [28] - 81:15, 184:24, 191:8, 191:14, 192:5, 192:8, 192:17, 199:16, 232:14, 233:8, 234:12, 234:16, 272:24, 274:12, 274:17, 278:9, 283:6, 292:17, 295:8, 295:15, 296:24, 297:2, 299:19, 301:11, 301:20, 309:18, 312:15, 313:6 Davis [8] - 80:13, 81:15, 114:4, 150:21, 184:13, 272:20, 272:22, 292:14 DAY [1] - 79:16 days [3] - 137:1, 164:18, 196:9 **DE**[1] - 96:15 dead [1] - 206:19 deal [4] - 158:18, 259:24, 281:19, 290:4 dealing [3] - 207:14, 207:16, 265:19 deals [3] - 286:24, 287:15, 287:16 dealt [1] - 208:20 death [1] - 174:22 debate [11] - 111:13, 112:10, 118:1, 119:14, 121:16, 222:17, 240:1, 254:21, 277:24, 278:3, 294:5 debated [1] - 91:18 decade [2] - 208:14, 214:11 decade-plus [1] - 214:11 decades [1] - 119:17 deceive [1] - 126:19 138:3 deceived [4] - 139:1, 212:3, 212:7, 263:5 December [4] - 159:9, 159:15, 201:14, 224:24 deception [17] - 126:22, 126:23, 127:1, 127:2, 127:12, 128:13, 128:16, 283:17 128:24, 128:25, 129:14, 129:25, 131:5, 132:5, 135:5, 212:7, 257:9 deceptive [8] - 130:25, 136:3, 212:4, 257:10, 258:13, 261:8, 261:22, 261:24 decide [4] - 96:22, 191:13, 253:7 decided [6] - 141:1, 142:9, 261:5, 279:25, 298:1, 306:14 deciding [4] - 186:6, 301:8, 305:10, 311:7 decision [13] - 114:1, 118:21, 134:1, 135:12, 187:13, 195:20, 237:25, 244:4, 262:10, 265:16, 272:2, 277:15, 295:24 decision-maker [1] - 262:10 decisions [3] - 196:7, 288:18 deck [2] - 232:16, 248:20 Deming [1] - 80:11

declarant [1] - 166:4 declaration [56] - 100:25, 101:1, 101:4, 101:6, 105:10, 106:2, 109:25, 110:1, 110:3, 110:13, 110:16, 111:4, 111:5, 135:7, 160:23, 161:5, 161:14, 161:21, 162:25, 164:19, 164:22, 165:9, 165:11, 165:24, 167:4, 167:14, 167:24, 170:7, 177:15, 178:13, 178:17, 178:18, 178:21, 179:7, 179:24, 181:13, 182:12, 182:17, 183:17, 215:15, 240:1, 240:10, 244:21, 254:14, 261:19, 262:13, 262:15, 270:18, 274:23, 279:6, 284:24, 301:21, 303:17, 312:4, 312:9 declarations [1] - 299:23 deemed [1] - 201:21 default [1] - 305:24 defeat [1] - 166:13 defeated [1] - 210:5 defeating [1] - 209:2 defend [3] - 214:15, 214:18, 214:19 defendant [13] - 81:15, 81:16, 81:20, 81:21, 81:22, 113:11, 128:14, 128:17, $131:17,\ 131:19,\ 131:23,\ 135:3,\ 254:22$ Defendant [1] - 79:9 **DEFENDANT**[1] - 80:9 defendant's [1] - 129:8 defense [43] - 83:4, 120:24, 126:4, 126:14, 126:17, 127:2, 127:5, 129:18, 131:12, 132:3, 135:17, 135:21, 136:1, 144:16, 144:19, 145:7, 210:1, 220:19, 221:5, 222:6, 258:1, 258:9, 261:12, 282:1, 282:3, 283:15, 284:10, 291:15, 292:5, 292:21, 292:23, 293:4, 293:10, 293:25, 294:7, 294:25, 302:24, 306:4, 311:15, 312:1, 313:4 defenses [10] - 83:25, 84:3, 84:4, 84:5, 95:23, 96:8, 120:23, 137:23, 137:25, defined [3] - 87:20, 94:24, 95:6 defines [1] - 92:20 defining [1] - 95:4 definitely [4] - 90:23, 249:10, 280:13, definitively [5] - 98:13, 100:2, 104:1, 144:3, 247:8 degree [1] - 86:20 degrees [5] - 86:20, 183:6, 183:9, 248:21. 249:5 delay [9] - 126:21, 126:24, 139:10, 212:11, 213:18, 214:17, 259:9, 263:23, 263:24 deliver [3] - 104:25, 296:13, 297:22 delivered [6] - 240:15, 240:23, 297:6, 297:16, 299:8, 301:16 delivery [1] - 280:11 demand [2] - 128:4, 132:24 demanding [1] - 109:15 demands [1] - 135:13

demonstrably [1] - 147:1 demonstrate [12] - 150:17, 155:23, 156:6, 156:8, 158:19, 159:23, 159:24, 160:25, 168:10, 184:1, 184:2, 204:11 demonstrated [4] - 163:12, 175:10, 176:3, 227:8 demonstrates [1] - 156:9 demonstrating [1] - 96:25 demonstratives [1] - 303:14 denied [2] - 218:6, 253:2 denies [1] - 293:25 Dennis [21] - 132:6, 132:20, 133:14, 133:16. 133:25. 134:24. 135:8. 202:4. 207:2, 207:9, 207:20, 207:24, 208:4, 209:22, 209:23, 211:12, 262:6, 262:9, 262:12, 263:19 Dennis's [4] - 207:4, 207:12, 262:15, 263:6 departing [1] - 196:5 Department [1] - 286:15 dependent [2] - 112:2, 112:4 depicted [1] - 195:7 deponent [2] - 166:4, 209:4 deponent's [1] - 209:13 deposed [4] - 163:17, 202:5, 209:24, 226:17 deposition [30] - 86:14, 92:6, 100:23, 100:24, 101:7, 101:11, 104:11, 109:11, 110:11, 110:12, 111:1, 129:16, 130:12, 130:15, 133:24, 147:22, 163:3, 172:9, 176:17, 178:16, 181:10, 181:12, 181:16, 181:19, 181:24, 195:3, 209:19, 221:18, 225:8, 241:24 describe [2] - 85:2, 87:18 described [9] - 186:10, 186:15, 188:18, 192:23, 196:4, 199:5, 265:6, 279:3, describes [3] - 115:4, 154:8, 168:11 describing [5] - 93:17, 157:19, 157:20, 166:19, 300:21 description [16] - 105:11, 113:4, 115:19, 116:7, 118:25, 155:19, 187:3, 188:4, 189:7, 189:25, 197:21, 198:7, 250:18, 269:3, 269:19, 297:17 deserves [1] - 157:12 design [58] - 119:16, 119:23, 120:4, 133:7, 146:7, 157:20, 161:24, 162:8, 166:11, 171:13, 171:23, 172:4, 172:5, 172:6, 172:8, 172:18, 172:21, 173:12, 173:15, 173:16, 176:19, 178:6, 178:7, 183:10, 183:12, 183:13, 185:17, 185:19, 198:4, 199:25, 200:19, 202:25, 206:16, 210:21, 211:25, 218:25, 220:11, 220:16, 221:7, 221:15, 221:20, 221:23, 221:25, 222:3, 222:11, 224:6, 226:20, 226:23, 226:25, 227:8, 227:12, 242:4, 242:22, 244:14, 250:4, 252:14, 271:14 designated [2] - 261:11, 261:12

designation [1] - 261:10 designed [21] - 107:11, 118:17, 119:17, 119:24, 162:18, 173:21, 174:1, 174:4, 184:9, 207:9, 207:25, 208:3, 220:14, 220:20, 222:9, 222:12, 226:19, 236:14, 236:17, 252:19 designee [4] - 86:15, 129:17, 261:11, 266:8 designing [6] - 200:2, 221:1, 222:9, 242:17, 245:24, 252:23 designs [5] - 146:2, 170:18, 178:5, 183:1, 206:10 desist [2] - 133:12, 134:8 desk [4] - 137:1, 147:7, 147:14 destined [1] - 302:6 destroyed [2] - 214:9, 263:13 destruction [1] - 263:22 destructive [1] - 171:25 detail [6] - 111:19, 167:7, 200:20, 241:25, 294:22, 312:12 detailed [1] - 110:17 details [9] - 136:10, 136:12, 138:19, 159:7, 171:15, 178:22, 188:1, 196:4, 247:24 determination [1] - 110:21 determine [5] - 151:20, 172:10, 172:14, 230:11, 287:5 determined [1] - 212:6 determining [1] - 224:18 devastating [1] - 173:21 develop [2] - 220:1, 220:6 developed [6] - 119:18, 167:11, 222:14, 231:9, 231:10, 264:8 developing [1] - 242:7 development [1] - 279:24 device [33] - 84:5, 113:19, 115:5, 115:6, 115:11. 115:15. 120:5. 145:18. 153:21, 153:24, 154:6, 154:11, 154:25, 161:10, 170:9, 170:13, 170:15, 187:7, 233:25, 234:3, 234:6, 234:9, 234:22, 252:21, 252:22, 264:6, 265:4, 288:8, 288:25, 289:2, 289:4, 296:2, 305:4 devices [9] - 115:21, 118:19, 119:13, 119:19, 119:21, 120:1, 120:2, 252:23, 279:20 diagram [1] - 229:13 dice [2] - 250:16, 279:2 difference [21] - 86:16, 86:22, 86:25, 87:25, 88:3, 88:16, 90:11, 91:11, 114:9, 121:16, 126:5, 126:23, 140:12, 166:2, 218:19, 287:3, 300:23, 300:25, 301:8, 305:3, 306:24 differences [2] - 86:17, 86:18 different [70] - 88:2, 91:12, 93:17, 105:21. 111:25. 112:2. 122:7. 133:7. 141:11. 146:1. 153:23. 156:11. 168:7. 168:11, 173:16, 183:1, 192:6, 192:12, 192:22, 196:11, 196:18, 202:24, 207:14, 207:15, 208:5, 208:6, 226:8,

235:22, 235:24, 241:6, 241:7, 242:7, 246:16, 246:17, 246:18, 246:20, 248:20, 249:1, 250:20, 251:21, 252:7, 252:17, 254:11, 254:12, 256:6, 257:10, 257:11, 264:13, 265:5, 268:24, 275:12, 276:21, 276:22, 279:12, 289:22, 290:5, 295:21, 296:18, 298:7, 302:14, 304:12, 304:22, 304:25, 305:16, 306:6, 310:14 differently [3] - 96:23, 245:18, 307:15 differs [1] - 166:16 difficult [4] - 85:8, 138:22, 169:6, 186:7 dig [2] - 239:20, 252:13 digitally [1] - 314:7 **Dimension** [10] - 118:21, 118:22, 119:7, 119:8, 119:10, 119:12, 119:13, 143:18, 143:22, 252:18 dimensions [2] - 229:3, 229:16 direct [6] - 98:22, 99:6, 105:8, 108:21, 110:12, 300:9 direction [4] - 230:3, 234:8, 264:15, 305:5 directions [1] - 305:4 directly [11] - 94:6, 118:20, 154:1, 233:3, 235:5, 235:9, 276:2, 295:4, 295:6, 296:6, 300:16 directs [1] - 264:23 disagree [3] - 124:7, 190:25, 305:15 disagreed [1] - 252:2 disagreeing [1] - 215:17 disagreement [1] - 252:4 disagrees [4] - 92:2, 163:5, 163:6, 279.8 disappear [1] - 213:22 disappearing [1] - 205:9 disassembled [1] - 210:18 disc [2] - 104:3, 104:4 discerned [1] - 274:5 disclose [15] - 112:21, 113:25, 114:17, 133:5, 146:13, 185:8, 187:24, 187:25, 250:24, 251:16, 253:14, 277:2, 277:19, 279:19, 279:21 disclosed [29] - 98:14, 113:12, 116:4, 185:16, 185:19, 186:17, 186:23, 187:8, 188:21, 189:15, 190:4, 190:17, 193:4, 193:5, 195:16, 197:25, 198:15, 198:18, 198:25, 199:2, 249:20, 250:17, 251:5, 251:10, 265:10, 273:10, 273:15, 275:22, 277:25 discloses [3] - 90:20, 112:11, 250:23 disclosing [1] - 185:25 disclosure [26] - 114:25, 116:2, 186:25, 187:16, 188:8, 188:25, 191:6, 191:25, 192:20, 194:22, 196:10, 196:13, 196:22, 197:5, 251:13, 251:14, 251:17, 251:21, 251:23, 253:10, 273:14, 273:16, 273:22, 275:21, 276:15, 304:4 disconnect [1] - 311:24

229:12, 233:1, 233:10, 235:20,

discovery [3] - 176:9, 245:19, 258:16 discretion [3] - 124:20, 125:1, 255:25 discuss [2] - 163:15, 186:21 discussed [18] - 82:10, 88:7, 93:23, 115:3, 117:12, 135:19, 142:8, 143:17, 145:3, 153:15, 254:9, 259:18, 279:20, 280:5, 286:15, 290:4, 290:8, 303:16 discussing [4] - 118:25, 153:1, 189:2, discussion [15] - 84:13, 90:7, 129:10, 131:13, 131:15, 170:10, 209:12, 212:1, 219:9, 253:19, 265:15, 271:8, 274:10, 280:25, 304:13 discussions [3] - 129:5, 212:2, 281:24 disingenuous [1] - 220:24 dismiss [2] - 165:8, 226:5 dismissed [2] - 164:23, 165:11 dispelled [1] - 132:17 dispensers [2] - 119:25, 120:1 display [1] - 284:5 displaying [1] - 274:9 disposed [1] - 135:25 dispositive [3] - 160:20, 177:4, 177:7 disprove [2] - 100:7, 239:17 dispute [32] - 84:14, 84:23, 89:22, 94:19, 95:25, 96:1, 96:16, 97:4, 114:3, 114:23, 123:7, 157:15, 158:3, 158:6, 185:13, 199:8, 204:14, 204:22, 204:23, 218:10, 219:21, 223:5, 234:16, 234:18, 247:23, 253:8, 285:9, 289:10, 289:12, 291:10, 303:10, 305:14 disputed [9] - 165:15, 166:24, 184:6, 210:1, 218:5, 222:1, 222:16, 229:22, 273:16 disputes [3] - 96:3, 223:10, 223:11 **disputing** [3] - 156:22, 165:15, 200:23 disregarding [1] - 288:16 distance [2] - 264:10, 264:17 distinction [3] - 218:24, 278:18, 289:7 distinctions [1] - 219:24 distinguish [5] - 173:15, 187:6, 198:21, 288:4, 297:24 distinguishable [1] - 288:23 distinguishing [1] - 192:3 distort [1] - 162:6 distributor [1] - 149:18 District [15] - 80:18, 110:5, 119:15, 128:7, 202:18, 205:24, 216:8, 257:21, 271:25, 272:7, 288:19, 288:20, 295:23, 298:2, 305:16 DISTRICT[3] - 79:1, 79:2, 79:19 dive [2] - 82:19, 137:19 dived [1] - 117:7 diving [1] - 84:7 divorced [2] - 92:10, 127:10 docket [4] - 141:9, 246:25, 284:1, doctrine [9] - 110:17, 110:18, 126:10,

149:13, 202:13, 257:23, 257:24,

259:8, 272:12 drywall [7] - 107:9, 107:10, 107:12, 107:18, 107:20, 107:21, 107:22 doctrines [1] - 118:25 document [19] - 98:3, 159:2, 159:5, duck [1] - 264:21 165:7, 183:18, 195:18, 197:20, due [1] - 206:19 200:11, 216:21, 219:18, 263:22, Dugan [1] - 106:3 274:8, 274:18, 275:14, 275:15, 276:5, Duke [1] - 295:24 276:10, 277:7, 277:13 duplicate [2] - 168:17, 168:20 documentary [2] - 97:3, 159:19 durability [1] - 172:15 documentation [1] - 106:24 during [17] - 101:4, 123:5, 129:16, documenting [1] - 302:4 163:3, 173:11, 174:2, 176:17, 202:1, documents [32] - 98:3, 99:3, 101:14, 202:2, 206:11, 207:6, 219:9, 220:10, 101:15, 104:19, 104:23, 110:14, 221:22, 225:8, 258:21, 263:15 159:10, 179:1, 179:3, 179:5, 179:17, duty [4] - 126:16, 126:18, 126:19 179:18, 179:23, 180:1, 180:9, 181:2, 213:22, 217:15, 224:9, 225:14, Ε 226:22, 230:20, 247:7, 263:14, 266:5, 280:12, 280:15, 297:11, 298:21, e-mail [4] - 127:20, 130:22, 136:10, 299:13 260:16 dollars [1] - 300:3 e-mails [16] - 127:19, 145:19, 148:18, done [29] - 95:18, 104:14, 119:23, 148:21, 148:23, 149:12, 149:23, 121:13, 126:13, 129:18, 134:23, 214:1, 214:4, 224:11, 224:16, 225:9, 159:14, 161:15, 163:20, 199:24, 226:5, 226:7, 266:12, 266:13 202:2, 207:13, 207:21, 244:6, 245:18, eager [1] - 250:20 252:13, 261:17, 266:7, 266:16, earliest [3] - 106:6, 106:17, 223:16 270:13, 270:14, 270:19, 276:19, early [12] - 101:16, 105:8, 106:19, 282:13, 283:17 123:5, 159:14, 172:20, 178:6, 178:7, door [1] - 181:5 178:15, 201:3, 207:10, 224:25 dot [3] - 103:12, 103:13 earthquake [6] - 107:12, 107:25, double [2] - 116:1, 308:15 244:10, 244:11 doubt [5] - 162:11, 181:17, 223:23, earthquake-prone [1] - 244:10 225:9, 293:18 earthquakes [3] - 107:11, 170:21, 244:5 down [45] - 85:15, 86:6, 88:3, 92:25, easier [2] - 126:12, 168:7 115:9, 133:6, 139:7, 141:19, 146:16, easiest [1] - 187:11 146:20, 148:8, 153:18, 186:8, 191:18, easily [1] - 277:8 228:2, 228:5, 229:3, 238:14, 240:3, Eastern [1] - 288:19 240:19, 246:7, 257:12, 258:9, 267:1, easy [3] - 123:15, 160:15, 187:8 267:5, 275:2, 295:17, 303:7, 303:8, **ECF** [4] - 194:16, 275:1, 276:25, 311:8 303:9, 303:11, 303:18, 303:20, effect [3] - 202:19, 248:10, 249:11 303:23, 304:10, 304:11, 306:18, effective [8] - 124:19, 124:24, 186:5, 308:23, 308:25, 309:9, 311:2, 311:3, 199:6, 254:18, 256:8, 258:1, 278:4 311:12, 312:7 effectively [4] - 198:3, 246:5, 276:6, dramatically [3] - 202:23, 212:11, 300:15 212:20 egregious [1] - 131:18 draw [3] - 99:5, 128:23, 203:23 eight [1] - 289:25 drawing [11] - 99:25, 100:4, 102:1, either [17] - 90:10, 109:18, 113:1, 114:5, 103:25, 105:16, 116:10, 229:15, 117:23, 140:1, 157:17, 158:4, 172:24, 230:4, 239:13, 248:1, 258:21 186:3, 189:4, 249:20, 257:12, 258:12, drawings [24] - 100:11, 100:13, 101:18, 305:21, 307:21, 308:17 102:5, 102:7, 102:8, 102:11, 102:13, elastic [1] - 238:17 102:15, 102:16, 102:17, 102:22, elected [1] - 128:23 102:23, 159:11, 176:13, 182:7, 183:2, electricity [1] - 274:18 183:4, 229:4, 247:8, 252:15, 271:18, electronic [4] - 100:11, 100:13, 101:18, 280:16 280:15 drawn [3] - 103:15, 210:4, 211:8 element [21] - 97:22, 98:19, 99:7, draws [2] - 257:25, 259:25 140:12, 153:25, 155:3, 155:6, 155:8, drive [14] - 90:2, 152:13, 154:7, 154:14, 155:16, 213:14, 219:9, 249:18, 189:18, 189:23, 190:22, 191:6, 249:20, 250:2, 273:1, 277:23, 277:24, 191:10, 191:11, 197:4, 269:12, 269:14 278:24, 278:25, 279:3 driven [1] - 104:24 elements [20] - 112:12, 113:1, 113:25,

114:17, 127:4, 140:10, 151:22,

drop [1] - 260:17

152:24, 158:7, 167:15, 170:17, 173:20, 198:22, 198:24, 249:24, 250:4, 251:5, 273:6, 277:22 elevation [1] - 297:18 Elliott [4] - 80:5, 233:11, 237:10, 239:22 Elmore [2] - 170:1, 175:1 elongate [1] - 153:13 elongated [2] - 87:15, 170:20 elsewhere [1] - 291:13 embodiment [22] - 89:17, 90:20, 100:18, 115:1, 117:1, 117:5, 117:9, 117:20, 118:1, 118:4, 120:18, 189:11, 189:14, 189:17, 190:4, 192:14, 192:21, 195:7, 195:14, 274:5, 275:17, embodiments [19] - 91:21, 92:1, 93:22, 189:10, 192:19, 193:5, 193:20, 194:12, 194:24, 195:9, 196:4, 197:6, 197:22, 198:9, 269:5, 269:10, 269:18, 273:14, 278:20 emphasized [1] - 174:6 employee [1] - 104:5 employees [1] - 104:6 employer [1] - 304:2 en [2] - 195:20, 277:15 enable [2] - 113:25, 114:17 enablement [2] - 113:4, 118:25 encompassed [2] - 230:6, 230:10 encompassing [1] - 196:23 encounter [1] - 244:1 encourage [3] - 167:6, 249:14, 271:9 end [17] - 84:13, 114:19, 120:18, 125:5, 127:19, 131:14, 137:17, 141:21, 155:5, 195:25, 197:21, 205:9, 214:21, 217:23, 250:2, 286:20, 305:13 ended [9] - 112:19, 113:8, 113:17, 129:12, 184:11, 216:11, 235:11, 250:1, 250:6 ending [1] - 311:25 endings [1] - 103:10 endosurgery [1] - 120:7 ends [3] - 153:12, 155:10, 184:12 energy [1] - 216:23 enforce [2] - 211:8, 213:20 enforced [1] - 207:11 enforcement [5] - 206:9, 294:2, 299:3, 299:11, 301:15 enforces [1] - 124:13 engage [3] - 85:14, 88:24, 95:1 engaged [3] - 131:18, 154:21, 269:17 engages [3] - 85:19, 236:15, 287:1 engaging [2] - 191:23, 276:25 engine [2] - 242:14, 242:20 engineered [3] - 174:2, 174:4, 176:14 engineering [3] - 159:11, 166:11, 229:4 engineers [3] - 221:20, 221:23, 221:25 English [2] - 92:11, 159:5 enhance [1] - 225:18 enjoy [4] - 284:12, 284:22, 286:24,

309:1 enjoyed [1] - 307:1 enter [2] - 96:22, 279:9 entered [4] - 96:4, 114:20, 120:19, 121:23 enters [1] - 303:5 entire [6] - 115:20, 142:13, 167:9, 221:22, 240:25, 279:19 entirely [15] - 230:10, 234:3, 234:14, 235:6, 242:7, 245:4, 247:6, 249:13, 256:5, 259:6, 259:12, 259:19, 264:5, 265:5, 279:13 entirety [1] - 274:22 entities [1] - 295:3 entitled 1261 - 91:25, 93:21, 111:14, 112:20, 114:21, 130:14, 136:1, 150:20, 158:4, 185:10, 185:20, 186:4, 186:18, 188:9, 188:23, 190:5, 199:9, 199:13, 223:2, 223:9, 223:10, 223:12, 231:24, 232:4, 275:25, 276:12 entitlement [5] - 83:23, 90:18, 96:18, 97:6, 193:11 entries [1] - 180:7 environmental [1] - 172:15 envision [2] - 113:11, 116:16 equal [1] - 304:2 equally [1] - 124:4 equipment [2] - 299:2, 299:11 equitable [39] - 83:24, 126:3, 126:4, 126:6, 126:10, 126:11, 126:17, 127:4, 128:11, 128:14, 131:14, 132:3, 134:17, 135:6, 135:17, 135:20, 135:21, 136:2, 136:4, 137:16, 138:5, 138:9, 139:8, 139:12, 150:23, 199:19, 204:11, 214:21, 253:17, 253:19, 256:18, 257:8, 257:24, 258:4, 258:7, 259:14, 263:21, 263:24 equities [4] - 131:19, 135:22, 211:17, 212:10 equity [1] - 135:22 equivalent [1] - 108:5 equivalently [2] - 220:15, 220:18 erector [7] - 153:13, 153:16, 153:22, 155:15, 171:4, 182:5 error [25] - 121:7, 121:8, 124:2, 124:3, 124:6, 205:14, 215:21, 215:25, 216:9, 216:12, 216:16, 216:21, 217:2, 217:9, 254:12, 254:23, 254:24, 255:1, 256:23, 257:3, 257:4, 257:7, 259:20 errors [3] - 174:17, 174:20, 216:19 especially [1] - 273:2 essence [1] - 105:14 essential [1] - 237:24 essentially [8] - 112:6, 135:9, 137:16, 193:1, 196:9, 213:9, 218:17, 293:22 establish [3] - 194:8, 194:9, 263:24 established [1] - 216:8 establishing [2] - 143:15, 193:11

estoppel [48] - 83:25, 126:3, 126:6,

126:10, 126:11, 126:17, 127:5,

128:11, 131:14, 132:3, 134:18, 135:6, 135:17, 135:20, 136:2, 136:4, 137:16, 138:5, 138:9, 139:12, 150:24, 199:19, 204:6, 204:11, 208:7, 208:10, 209:5, 209:11, 209:17, 209:18, 209:22, 210:14, 212:10, 212:16, 214:14, 214:21, 253:17, 253:19, 256:18, 256:19, 257:8, 257:24, 258:4, 258:7, 259:14, 263:21, 263:25, 271:24 estoppel's [1] - 128:14 etched [1] - 189:22 event [17] - 94:22, 95:3, 108:11, 109:13, 110:10, 110:13, 111:4, 111:11, 128:25, 197:14, 245:10, 261:22, 263:17, 265:8, 280:3, 298:3, 310:23 events [2] - 149:2, 149:6 everywhere [2] - 122:23, 312:5 evidence [146] - 91:9, 96:25, 97:3, 98:2, 98:6, 98:8, 98:12, 98:13, 98:17, 98:19, 98:20, 98:22, 98:24, 99:12, 99:15, 99:21, 99:24, 100:8, 100:10, 101:24, 102:13, 102:21, 106:22, 107:15, 108:11, 108:21, 108:22, 109:7, 110:20, 111:8, 116:22, 118:7, 118:13, 120:15, 120:20, 127:11, 131:4, 143:2, 143:5, 143:7, 143:8, 143:10, 143:12, 143:14, 144:14, 144:15, 145:8, 145:9, 145:14, 148:16, 148:17, 149:25, 156:8, 156:10, 156:23, 157:3, 157:4, 157:5, 158:17, 158:18, 158:22, 159:17, 159:19, 160:2, 160:18, 160:19, 161:16, 161:17, 163:11, 163:19, 164:16, 166:13, 170:15, 175:8, 176:24, 177:3, 177:4, 177:5, 177:6, 177:13, 178:18, 180:12, 183:14, 183:16, 184:7, 184:8, 185:22, 186:19, 193:6, 193:11, 195:2, 195:22, 195:25, 197:7, 197:16, 202:2, 211:11, 214:12, 214:18, 214:19, 219:3, 223:21, 225:3, 225:12, 225:16, 227:17, 227:19, 229:19, 239:6, 239:13, 239:21, 239:24, 240:4, 241:1, 241:3, 243:20, 245:5, 245:6, 245:8, 245:15, 258:19, 260:21, 263:16, 267:8, 268:11, 270:11, 270:14, 270:19, 271:16, 271:22, 280:9, 280:18, 286:18, 290:10, 291:10, 292:1, 292:2, 292:22, 301:9, 303:22, 312:3. 312:18 evidentiary [7] - 109:5, 109:20, 109:22, 109:23, 110:18, 225:4, 225:14 exact [7] - 137:3, 161:22, 162:2, 185:18, 185:25, 235:19, 254:19 exactly [29] - 89:5, 108:19, 109:7, 113:18, 119:22, 122:4, 132:7, 136:10, 138:21, 166:15, 202:18, 254:21, 257:19, 259:7, 259:20, 261:9, 275:8, 287:6, 293:3, 293:12, 294:3, 295:21, 296:3, 296:12, 299:9, 300:12, 301:14 exam [1] - 180:21

examination [10] - 178:1, 178:16, 178:22, 178:24, 179:8, 181:20, 182:13, 184:10, 247:20, 248:11 examined [1] - 280:12 example [48] - 98:10, 103:7, 115:4, 115:5, 115:14, 116:9, 116:13, 119:25, 145:22, 149:17, 152:22, 187:11, 188:16, 189:4, 190:10, 190:11, 190:19, 190:20, 193:17, 194:5, 199:1, 199:2, 219:20, 220:22, 225:6, 228:14, 242:25, 243:11, 248:14, 269:3, 270:3, 279:18, 279:21, 280:3, 280:5, 284:18, 294:18, 295:5, 300:9, 303:13, 304:8, 304:10, 304:17, 305:7, 305:8, 305:10, examples [11] - 104:21, 166:3, 169:17, 188:21, 190:23, 198:17, 241:7, 273:10, 273:12, 291:20, 307:9 except [6] - 134:11, 190:1, 198:5, 260:3, 261:11, 308:5 exception [4] - 109:8, 266:14, 284:11, 305:24 exceptions [1] - 109:18 excerpt [1] - 93:15 exchange [2] - 138:13, 225:21 exclude [1] - 219:5 **excluded** [1] - 119:15 exclusive [1] - 289:2 exclusively [1] - 288:25 excuse [8] - 208:14, 208:15, 208:16, 208:21, 208:23, 216:7, 241:22, 287:9 excused [1] - 216:9 excuses [1] - 208:8 executive [1] - 131:23 exemplary [1] - 146:4 exercise [2] - 124:19, 301:23 **exercising** [1] - 255:25 Exhibit [2] - 120:11, 296:5 exhibit [2] - 295:7, 295:9 exhibits [2] - 101:5, 101:6 exist [5] - 102:17, 105:23, 208:23, 290:12, 308:1 existed [1] - 210:5 existing [5] - 241:25, 242:3, 242:12, 278:25, 300:19 exists [3] - 301:9, 301:19, 307:25 expand [4] - 192:24, 202:23, 204:8, 238:8 expanded [4] - 189:7, 189:8, 189:25, expect [4] - 143:23, 243:2, 244:1, expected [2] - 241:14, 250:8 expediency [1] - 300:10 expedite[1] - 302:13 **experience** [15] - 118:18, 119:4, 119:17, 119:19, 120:4, 120:6, 120:8, 144:7, 220:11, 220:16, 220:23, 221:1, 222:11, 265:5 expert [45] - 84:18, 84:22, 84:24, 87:3,

87:4, 92:3, 98:8, 118:23, 119:12, 119:15, 160:23, 161:24, 193:8, 193:24, 194:1, 219:1, 220:10, 220:13, 220:15, 220:21, 221:8, 222:5, 222:9, 222:18, 222:19, 229:5, 229:25, 230:18, 245:10, 246:19, 251:9, 252:5, 252:8, 252:9, 252:17, 253:15, 253:16, 265:16, 271:12, 273:25, 276:4, 276:5, 279:10, 281:11 expert's [2] - 212:13, 221:1 experts [12] - 88:17, 220:11, 220:14, 222:17, 251:8, 252:7, 252:11, 253:3, 270:7, 273:23, 274:1, 276:15 expired [1] - 206:22 explain [8] - 166:2, 192:15, 193:20, 197:13, 208:9, 275:1, 285:1, 294:10 explained [3] - 133:19, 202:19, 300:7 explaining [9] - 109:12, 130:13, 167:12, 193:17, 203:8, 206:8, 211:22, 269:4 explanation [4] - 194:21, 277:6, 277:10, 277:11 explicit [1] - 286:18 exploring [1] - 133:6 exposed [1] - 175:3 express [16] - 186:24, 251:14, 251:21, 251:23, 257:18, 273:14, 273:16, 284:15, 291:16, 291:18, 291:24, 294:4, 294:5, 305:22, 307:21, 309:8 expressly [11] - 98:12, 188:7, 189:10, 191:24, 192:14, 251:4, 251:16, 266:23, 275:22, 287:20, 290:7 extend [4] - 86:2, 233:2, 233:17, 233:21 extends [2] - 85:11, 234:18 **extension** [1] - 103:22 extensions [3] - 103:12, 103:17, 103:20 extensive [3] - 202:19, 243:4, 243:23 extensively [5] - 84:19, 99:8, 163:17, 167:11, 254:10 extent [6] - 88:16, 121:7, 188:25, 212:7, 249:12, 290:11 exterior [5] - 153:12, 154:9, 228:18, 234:1, 234:7 extra [1] - 261:2 extreme [2] - 174:8, 214:17 extremely [4] - 110:19, 132:7, 170:23, 274.6 extrinsic [1] - 286:18 F

F.3d [5] - 194:4, 194:6, 195:20, 239:12, 277:17

F.Supp.2d [1] - 295:24

face [37] - 85:22, 89:24, 90:2, 122:1, 122:17, 123:9, 123:19, 123:22, 125:15, 125:16, 139:20, 140:13, 152:13, 154:8, 154:14, 189:18, 189:23, 190:22, 191:7, 191:10,

191:11, 195:1, 197:4, 255:1, 255:4,

255:8, 255:14, 255:23, 256:3, 259:17,

facially [5] - 121:2, 121:6, 121:15, 122:6. 125:6 facing [1] - 269:12 fact [80] - 85:1, 89:25, 91:14, 94:22, 97:2, 98:3, 99:3, 99:19, 102:12, 102:17, 120:3, 121:6, 131:6, 131:24, 131:25, 134:24, 135:1, 135:25, 136:2, 136:13, 138:17, 139:21, 145:10, 146:24, 148:14, 165:12, 166:24, 178:3, 178:6, 179:12, 180:21, 180:22, 182:13, 183:20, 183:24, 186:23, 194:2, 205:20, 207:6, 207:15, 210:1, 210:21, 215:19, 215:23, 220:20, 221:15, 222:1, 225:7, 227:12, 230:5, 230:7, 230:17, 232:25, 236:16, 236:20, 236:21, 241:18, 244:17, 246:16, 246:17, 246:24, 247:23, 250:8, 253:11, 254:24, 254:25, 255:12, 259:7, 262:12, 263:10, 273:8, 276:16, 291:3, 291:16, 291:25, 298:14, 299:15, 302:22, 305:7, 309:22 facts [17] - 84:17, 119:9, 128:15, 128:21, 129:7, 129:15, 165:15, 167:23, 170:11, 184:6, 187:14, 193:22, 214:11, 222:17, 229:22, 257:19, 305:23 factual [11] - 84:14, 107:2, 110:21, 161:6, 193:25, 218:5, 219:21, 223:10, 223:11, 260:4, 306:11 factually [3] - 211:20, 212:8, 256:6 fail [2] - 117:3, 162:18 failed [5] - 170:16, 188:5, 200:23, 254:16, 271:6 failing [2] - 131:5 fails [1] - 127:3 failure [6] - 200:25, 204:21, 206:2, 207:18, 245:7, 259:2 fairly [5] - 204:6, 218:22, 220:24, 229:6, 309:23 fall [6] - 87:1, 123:21, 145:23, 169:4, 170:6. 278:22 fallback [5] - 106:20, 123:23, 125:7, 125:24, 142:23 falls [3] - 110:16, 114:18, 251:16 familiar [1] - 140:20 fanciful [1] - 278:20 far [7] - 89:23, 110:16, 123:17, 162:24, 189:22, 264:16, 308:6 FAR [11] - 284:17, 284:18, 285:2, 285:3, 285:5, 285:6, 286:5, 287:4, 291:24, 303:4, 303:23 fatal [2] - 134:17, 164:17 fault [5] - 124:6, 254:12, 254:23, 254:25, 255:18 faulty [1] - 157:4 **favor** [14] - 99:18, 99:25, 100:4, 102:2,

102:3, 105:16, 120:19, 128:14,

260:8, 260:13, 265:10, 269:12,

269:14, 284:21

facial [1] - 125:20

160:16, 212:10, 239:14, 247:25, 248:2 faxed [1] - 103:15 faxes [1] - 226:22 FBI [2] - 296:6, 296:9 feature [5] - 153:4, 250:7, 250:9, 297:19, 298:4 features [12] - 150:1, 152:25, 221:13, 222:3, 222:10, 290:3, 296:11, 297:6, 297:7, 298:14, 304:23 February [4] - 204:2, 282:18, 282:22, federal [1] - 282:20 Federal [38] - 98:12, 107:4, 107:16, 113:22, 114:1, 115:22, 116:6, 118:20, 119:3, 119:10, 123:14, 124:12, 125:3, 127:5, 131:11, 131:16, 131:17, 132:2, 135:16, 193:23, 194:4, 195:19, 196:8, 196:12, 244:3, 251:2, 255:12, 257:15, 258:6, 275:20, 276:11, 277:15, 279:4, 284:17, 287:9, 287:12, 289:13, 302:18 fee [5] - 216:22, 217:3, 217:10, 217:18 fees [1] - 217:17 felt [1] - 163:1 FERRIS [4] - 81:23, 309:3, 309:5, 309:17 Ferris [8] - 80:6, 81:23, 127:25, 212:5, 284:24, 309:5, 312:4, 312:9 Ferris's [1] - 303:17 few [11] - 94:23, 104:21, 126:9, 133:24, 177:12, 208:25, 227:10, 261:5, 267:14, 282:6, 294:17 fewer [1] - 284:11 fiber [1] - 108:25 field [16] - 119:5, 119:20, 120:8, 143:20, 143:24, 144:4, 144:7, 161:25, 169:19, 169:20, 171:13, 241:11, 252:10, 252:14, 252:23, 265:6 fielded [1] - 264:8 fields [5] - 116:8, 116:13, 221:6, 221:25, 246:3 fight [1] - 140:21 figure [12] - 85:7, 85:21, 87:5, 152:16, 189:20, 226:24, 228:25, 229:24, 230:11, 237:14, 301:18 figures [8] - 117:14, 123:21, 152:4, 189:4, 189:7, 191:10, 237:2 file [7] - 111:24, 130:25, 205:15, 213:22, 216:16, 216:17, 217:22 filed [38] - 111:17, 121:12, 122:9, 122:12, 124:1, 125:14, 131:22, 132:14, 132:18, 132:25, 157:14, 158:12, 159:4, 159:7, 160:22, 161:4, 161:14, 162:2, 185:23, 186:1, 189:1, 189:6, 200:6, 200:15, 203:20, 205:5, 206:21, 214:25, 215:14, 215:17, 216:1, 217:2, 217:6, 227:11, 244:25, 245:3, 265:22, 271:1 files [13] - 102:20, 103:4, 103:6, 103:7, 103:11, 103:20, 103:22, 103:25, 111:17, 128:5, 200:21, 203:17

filing [30] - 99:14, 111:23, 125:19, flashing [7] - 147:12, 187:20, 187:25, 138:14, 138:20, 145:2, 145:4, 156:2, 188:8, 188:17, 188:19, 188:20 156:4, 157:9, 157:22, 179:14, 185:20, Fleming [1] - 98:10 186:18, 188:10, 188:11, 190:5, 193:12, 193:13, 199:9, 199:13, 200:24, 223:2, 223:16, 226:9, 261:5, 261:6. 278:5 fill [2] - 146:14, 306:14 filtered [1] - 295:6 final [3] - 122:21, 126:2, 157:10 finally [5] - 246:21, 263:12, 266:3, 279:16, 280:8 financial [13] - 104:12, 104:16, 104:17, 105:19, 177:19, 177:20, 179:1, 179:17, 179:18, 180:1, 181:2, 183:18, 280:12 fine [6] - 188:18, 236:2, 283:11, 291:18, 291:21, 292:12 finish [4] - 82:25, 282:16, 282:18, 312:23 finished [4] - 101:17, 138:5, 254:6, 283:8 Finney [2] - 168:4, 168:9 fire [3] - 264:7, 264:21, 264:24 firearm [4] - 140:1, 173:2, 174:12, 265:12 firearms [2] - 171:22, 173:19 fired [2] - 162:16, 174:12 first [78] - 85:3, 87:4, 87:6, 102:5, 103:12, 110:7, 110:9, 110:21, 116:23, 118:6, 122:3, 122:17, 123:13, 123:19, 123:20, 124:17, 125:2, 125:11, 126:25. 128:6. 132:13. 138:2. 141:14. 144:5, 145:16, 145:20, 148:20, 152:2, 152:7, 153:12, 157:8, 158:25, 159:24, 160:23, 164:20, 164:22, 166:21, 167:6, 169:14, 177:15, 183:8, 193:21, 194:3, 199:24, 200:10, 201:18, 204:2, 209:3, 210:6, 214:2, 216:2, 216:4, 221:21, 226:9, 232:23, 235:13, 239:21, 243:7, 245:8, 248:25, 249:10, 249:17, 255:2, 255:7, 257:8, 257:14, 258:12, 268:9, 270:17, 278:17, 285:22, 286:4, 287:19, 296:22, 298:1, 313:1 fit [9] - 87:11, 138:9, 138:11, 172:24, 172:25, 173:4, 173:9, 236:17, 238:14 Fitness [4] - 235:16, 235:17, 235:21, 236:24 fits [6] - 117:17, 118:20, 194:20, 238:7, 244:7, 275:6 five [6] - 82:23, 180:7, 180:22, 181:1, 281:6, 281:18 fix [4] - 205:17, 215:11, 215:18, 216:2 fixed [2] - 205:3, 207:22 fixes [2] - 255:6 fixing [2] - 205:21, 254:25 flag [1] - 95:24 flange [2] - 238:3, 238:6 flash [3] - 264:11, 264:12, 264:22

flexibility [1] - 309:25 flip [3] - 85:20, 281:9, 281:22 flip-up [1] - 281:22 flipping [1] - 100:9 float [1] - 252:21 floatation [1] - 252:23 floated [2] - 252:19 floating [1] - 269:25 flotation [5] - 119:13, 119:19, 119:21, 252:20, 252:22 flow [18] - 303:7, 303:8, 303:9, 303:11, 303:18, 303:20, 303:23, 304:10, 304:11, 306:18, 308:23, 308:25, 309:9, 311:2, 311:3, 311:12, 312:7 flow-down [13] - 303:7, 303:8, 303:18, 303:20, 303:23, 304:10, 304:11, 308:23, 308:25, 309:9, 311:2, 311:3, 311:12 flowdowns [1] - 311:10 flowing [1] - 300:11 flows [1] - 295:17 flush [1] - 142:6 focus [42] - 84:21, 85:16, 85:22, 85:25, 86:3, 86:6, 86:12, 86:23, 89:25, 96:11, 97:1, 100:21, 105:4, 108:8, 141:17, 146:2, 146:9, 153:4, 154:6, 155:17, 157:1, 167:8, 174:9, 174:13, 174:19, 204:18, 233:16, 233:18, 233:19, 233:24, 233:25, 234:6, 234:8, 234:16, 234:22, 235:13, 242:4, 243:18, 244:18, 269:8, 269:19 focusing [3] - 120:5, 153:23, 158:16 **follow** [8] - 85:10, 85:14, 87:24, 109:6, 111:18, 130:22, 134:25, 212:5 follow-up [1] - 212:5 followed [2] - 82:20, 272:2 follower [68] - 85:14, 85:15, 86:2, 88:22, 88:24, 89:20, 94:24, 94:25, 95:7, 100:16, 112:9, 112:13, 112:22, 114:14, 117:17, 152:9, 154:20, 185:18, 189:3, 189:5, 189:12, 189:16, 191:24, 192:1, 194:18, 194:19, 198:1, 198:13, 198:25, 199:2, 228:4, 229:2, 230:13, 230:25, 231:1, 231:3, 231:5, 231:7, 231:14, 231:15, 231:16, 231:18, 231:19, 231:20, 232:2, 232:6, 236:4, 236:8, 236:11, 236:12, 236:14, 236:16, 236:17, 236:18, 236:25, 237:5, 237:6, 237:16, 250:23, 251:1, 269:17, 273:7, 275:4, 275:5, 276:25, 277.24 followers [4] - 82:6, 273:9, 277:25, 279:22 following [3] - 87:14, 201:15, 312:8 follows [1] - 276:24 footnote [2] - 109:2, 265:21 FOR [3] - 79:2, 80:2, 80:9

funny [4] - 129:3, 135:18, 136:5, 138:6

furthermore [4] - 167:14, 222:4, 230:23,

funneled [1] - 299:24

231:23

future [1] - 131:6

fuzzy [2] - 250:16, 279:2

forces [4] - 162:5, 173:21, 174:12, 299:3 foregoing [1] - 314:4 forget [1] - 116:5 forgotten [1] - 235:18 fork [12] - 115:1, 116:25, 117:5, 117:9, 117:12, 117:17, 117:25, 118:3, 189:16, 192:1, 194:19, 275:6 Form [1] - 297:11 form [17] - 98:24, 172:24, 172:25, 173:3, 173:9, 191:23, 216:17, 217:10, 217:19, 237:5, 288:2, 290:13, 290:23, 298:25, 299:1, 312:18 formal [2] - 107:19, 294:9 formation [2] - 286:9, 303:12 formed [5] - 156:15, 191:9, 201:2, 269:13, 290:15 forming [1] - 93:3 forms [1] - 217:17 formula [2] - 116:16, 116:18 forth [21] - 82:18, 82:21, 86:9, 86:10, 86:11, 95:15, 99:9, 107:13, 127:13, 127:18, 127:19, 129:8, 129:12, 135:11, 136:7, 138:12, 193:24, 214:4, 287:8, 301:20 forward [6] - 99:15, 100:9, 131:7, 139:8, 160:22, 239:13 foundation [2] - 149:7, 193:25 four [18] - 83:21, 96:8, 119:17, 137:23, 141:14, 150:11, 150:16, 155:20, 162:19, 195:18, 214:25, 241:6, 243:21, 265:11, 276:5, 276:10, 277:13, 277:16 fourth [2] - 126:2, 181:11 fragile [1] - 162:13 framed [2] - 251:24, 251:25 framework [2] - 292:2, 305:15 fraud [1] - 129:25 fraudulent [1] - 209:8 free [3] - 121:1, 216:18, 269:25 free' [1] - 302:22 free-floating [1] - 269:25 freed [1] - 282:17 fresh [2] - 232:22, 267:17 friend [1] - 252:14 front [4] - 122:1, 125:2, 145:6, 225:12 fronts [1] - 214:18 fulfill [4] - 290:20, 304:23, 305:10, 311:17 fulfilled [2] - 303:20, 309:25 fulfills [1] - 302:17 full [3] - 91:23, 141:15, 185:8 fully [8] - 101:14, 116:16, 121:14, 142:15, 149:11, 156:15, 168:17, function [6] - 172:25, 173:4, 173:9, 236:24, 255:13 functional [1] - 201:22 functionally [1] - 304:19 fundamental [3] - 257:22, 305:18, 311:24

G gallery [1] - 81:11 gamble [1] - 263:10 game [1] - 230:19 gap [1] - 201:25 gaping [1] - 291:14 gaps [1] - 201:7 Gasser [5] - 131:10, 131:18, 135:3, 135:15, 135:16 gather [1] - 178:17 general [9] - 92:19, 145:14, 165:25, 236:1, 239:1, 241:15, 262:1, 262:3, 266:10 generally [3] - 232:21, 295:2, 309:22 generated [1] - 240:7 generically [1] - 189:9 genesis [1] - 293:4 gentleman [1] - 104:10 genuine [1] - 194:2 genus [4] - 115:20, 279:19, 279:22 German [33] - 96:13, 155:25, 157:19, 157:22, 158:3, 158:7, 159:5, 159:16, 159:20, 159:25, 160:19, 164:2, 176:3, 176:25, 177:5, 178:10, 184:3, 184:4, 185:4, 185:11, 185:24, 199:10, 199:11, 199:21, 200:5, 201:11, 211:22, 223:4, 223:12, 225:21, 270:20, 271:2, 271:23 Germany [2] - 144:25, 225:22 given [13] - 91:22, 115:5, 128:21, 131:24, 142:18, 176:8, 245:19, 253:16, 261:16, 272:14, 280:16, 293:1, 308:2 glancing [1] - 122:2 glare [2] - 85:9, 150:8 goods [3] - 302:14, 303:6, 309:23 gotcha [3] - 209:18, 212:17, 248:14 government [101] - 217:12, 274:15, 281:25, 282:3, 283:15, 284:9, 284:12, 285:9, 285:17, 285:22, 286:25, 287:14, 287:20, 287:23, 287:25, 288:4, 288:9, 288:13, 288:25, 289:1, 289:4, 289:5, 289:16, 289:20, 290:2, 290:6, 290:9, 290:12, 290:16, 290:22, 290:23, 291:1, 291:7, 291:9, 291:11, 291:15, 292:19, 293:1, 294:1, 294:17, 294:24, 295:3, 295:5, 295:6, 295:12, 296:1, 296:4, 296:9, 296:12, 296:16, 296:19, 297:2, 297:5, 297:8, 297:20, 298:6, 298:16, 298:17, 298:20,

298:25, 299:16, 299:17, 299:21,

300:5, 300:12, 300:15, 301:2, 301:3,

301:6, 301:17, 302:6, 302:12, 302:23, 302:24, 303:5, 303:16, 303:19, 303:24, 304:5, 305:8, 306:3, 306:11, 306:19, 307:4, 307:20, 308:10, 309:9, 309:22, 310:3, 310:12, 310:13, 310:21, 311:16, 311:18, 312:3, 312:6, 312:13, 312:20 government's [5] - 286:19, 287:2. 289:8, 290:20, 294:10 grant [4] - 130:17, 156:25, 245:9, 247:24 granted [7] - 121:8, 157:10, 205:7, 215:4, 223:6, 253:2, 292:5 granting [1] - 252:5 grapple [1] - 310:11 gray [1] - 85:12 great [3] - 138:24, 284:6, 301:11 greater [1] - 300:6 green [1] - 152:10 greenish [2] - 152:19, 154:13 greenish-blue [2] - 152:19, 154:13 groove [83] - 86:3, 86:6, 86:7, 88:24, 89:4, 89:6, 89:11, 89:12, 89:15, 89:17, 89:21, 90:1, 90:11, 90:24, 90:25, 91:1, 108:6, 108:7, 112:8, 112:13, 117:11, 117:14, 117:15, 117:20, 117:23, 118:4, 152:11, 152:14, 154:23, 185:17, 189:3, 189:5, 189:12, 189:17, 189:22, 190:3, 190:13, 190:16, 190:17, 190:22, 191:3, 191:6, 191:7, 191:8, 191:9, 191:13, 191:19, 191:21, 191:23, 192:3, 192:23, 194:17, 194:25, 195:7, 197:3, 197:12, 198:1, 198:9, 198:10, 198:11, 198:13, 198:14, 199:1, 230:14, 253:10, 253:13, 253:14, 273:5, 273:17, 275:4, 275:19, 276:16, 276:21, 276:24, 277:2, 277:9, 277:20, 278:20, 278:22, 279:1, 279:15, 279:21 grounds [3] - 156:19, 201:10, 225:5 groundwork [1] - 292:1 guess [3] - 154:1, 243:7, 294:4 guessing [1] - 238:13 guiding [1] - 305:18 guilty [1] - 182:20 gun [4] - 220:16, 222:9, 252:15 guns [1] - 222:13 guy [1] - 147:13 Guys [1] - 260:5 guys [2] - 130:23, 260:11 Н

half [2] - 111:13, 254:20 Hammond [1] - 104:2 hand [9] - 122:7, 158:23, 159:7, 183:1, 243:23, 243:24, 274:12, 285:17, 285:18 handed [2] - 178:19, 179:5 handful [1] - 284:11

handhold [1] - 252:15 handing [1] - 151:10 handing) [2] - 83:14, 292:15 handled [2] - 162:14, 259:19 hands [4] - 146:17, 146:19, 146:21, 227:7 handshake [1] - 299:1 hang [1] - 234:5 hanger [1] - 107:13 hangs [2] - 107:10, 242:16 Hans [5] - 148:22, 148:25, 149:1, 214:6, happy [3] - 95:22, 225:13, 227:4 harm [1] - 308:14 **harmonized** [1] - 298:3 head [7] - 87:15, 119:1, 119:5, 144:8, 174:18, 197:19, 230:8 header [1] - 224:16 heads [1] - 90:6 hear 131 - 207:8. 238:21 heard [20] - 91:18, 109:10, 157:2, 165:19, 185:1, 186:19, 202:5, 205:10, 207:12, 220:4, 223:1, 224:4, 226:14, 227:24, 228:8, 236:10, 254:10, 268:20, 270:12, 271:8 HEARING [1] - 79:15 hearing [12] - 82:16, 91:19, 161:17, 220:24, 222:6, 225:14, 226:4, 230:16, 249:8, 273:2, 305:2 hearings [1] - 225:4 hears [1] - 128:1 hearsay [12] - 109:4, 109:8, 145:19, 148:21, 149:12, 149:24, 225:3, 225:4, 225:5, 225:6, 266:4, 266:14 hedges [1] - 101:13 held [5] - 122:5, 124:18, 169:10, 249:19, 287:25 helix [7] - 85:22, 85:25, 86:3, 86:6, 89:25, 95:2, 100:16 help [5] - 145:15, 151:14, 197:20, 221:15, 232:15 helpful [3] - 83:12, 208:9, 305:17 helping [1] - 222:3 helps [2] - 158:9, 170:21 Hemstreet [3] - 129:6, 129:13, 257:15 hereby [1] - 311:10 HERNANDEZ [1] - 79:18 hidden [1] - 233:12 high [5] - 110:19, 171:20, 173:22, 175:3, 212:20 high-caliber [1] - 173:22 higher [1] - 228:24 highlight [1] - 153:5 highlighted [12] - 94:8, 141:21, 153:21, 154:3, 158:18, 165:17, 209:3, 220:17, 274:22, 274:25, 288:22, 296:5 highlighting [3] - 158:25, 203:10,

himself [4] - 85:1, 104:8, 221:9, 221:16

hindsight [1] - 143:12 historic [1] - 164:5 historically [1] - 162:17 history [2] - 103:13, 199:20 hit [2] - 226:7, 284:2 hits [1] - 264:23 hold [2] - 87:3, 187:22 holder [1] - 156:6 holding [5] - 112:25, 202:18, 255:25, 256:1, 256:21 holdings [1] - 272:3 hole [9] - 85:10, 85:11, 85:14, 86:1, 86:7, 95:1, 230:9, 240:3, 291:14 holes [3] - 169:13, 170:20, 170:22 hollow [1] - 288:5 Hologic [2] - 116:6, 279:17 Hologics [1] - 115:3 honestly [2] - 229:12, 295:8 Honor [56] - 81:3, 82:15, 83:8, 83:15, 89:16. 90:15. 137:15. 184:24. 184:25. 191:14, 191:21, 192:5, 192:17, 199:14, 211:18, 232:11, 232:18, 234:13, 238:19, 243:12, 254:5, 266:1, 266:3, 267:11, 272:19, 272:24, 274:13, 276:16, 276:19, 278:7, 278:11, 280:21, 280:24, 282:11, 283:13, 283:23, 284:9, 292:9, 292:17, 295:15, 296:15, 296:25, 298:7, 299:19, 301:11, 301:24, 302:8, 302:10, 305:13, 309:3, 309:6, 309:18, 311:23, 312:15, 313:2, 313:6 HONORABLE [1] - 79:18 hope [5] - 83:2, 83:17, 232:16, 281:24, 283:8 hotter [1] - 114:23 hour [7] - 184:18, 281:4, 281:7, 281:9, 281:15, 282:9, 282:12 hours [1] - 254:2 housing [55] - 94:5, 94:6, 94:10, 94:11, 94:13, 94:15, 94:16, 94:18, 94:20, 94:23, 141:19, 142:4, 142:5, 142:11, 142:13, 142:19, 153:6, 153:9, 153:11, 154:3, 154:9, 154:17, 154:19, 228:18, 228:19, 228:21, 229:17, 233:2, 233:4, 233:17, 233:20, 233:22, 234:1, 234:7, 234:11, 234:14, 234:18, 234:20, 234:24, 234:25, 235:1, 235:4, 235:5, 235:7, 235:8, 235:9, 235:10, 269:7, 269:11, 269:13, 269:16, 269:21, 279:1, 298:13 hub [13] - 108:6, 154:12, 154:14, 154:24, 155:12, 185:17, 189:1, 189:4, 191:23, 269:10, 269:12, 269:16, 269:21 huge [1] - 294:19 human [1] - 264:15 hundred [2] - 220:1, 236:9 hundreds [4] - 219:18, 219:19, 267:22, 300:2 Hurley [1] - 169:23

hypothetical [4] - 113:12, 134:21, 134:22, 173:6 ı idea [18] - 132:16, 147:22, 149:20, 156:15, 176:15, 192:13, 192:22, 192:24, 195:5, 241:5, 241:10, 257:25, 269:6, 276:16, 277:2, 277:7, 301:5 Ideality [10] - 100:13, 100:14, 100:18, 102:16, 104:10, 175:13, 180:1, 180:8, 180:11, 180:15 ideas [1] - 246:16 identical [3] - 135:15, 158:11, 218:17 identified [11] - 147:4, 152:24, 153:9, 153:14, 156:2, 209:5, 211:21, 211:23, 229:1, 230:4, 302:1 identifiers [1] - 180:8 identifies [1] - 194:7 identify [5] - 149:17, 151:16, 151:21, 181:4, 192:20 identifying [5] - 151:4, 157:16, 201:10, 211:24, 229:2 ignore [3] - 97:13, 204:18, 225:3 ignores [3] - 247:6, 279:16, 280:1 ignoring [1] - 288:15 illustrate [3] - 158:9, 190:20, 191:10 illustration [1] - 187:7 image [5] - 85:3, 146:3, 152:5, 183:2, 237:17 imaginable [1] - 113:9 imagine [5] - 138:22, 250:8, 250:12, 263:18, 309:14 immediately [1] - 102:21 immune [4] - 285:11, 285:23, 292:20, 303:21 immunity [20] - 284:13, 284:22, 285:1, 285:25, 286:1, 286:4, 286:11, 286:13, 286:24, 287:16, 290:24, 302:11, 302:12, 302:24, 303:24, 304:8, 305:18, 305:19, 312:7 impact [5] - 162:1, 174:13, 243:17, 244:18, 277:5 impediment [1] - 293:23 implant [1] - 169:18 implementation [1] - 293:23 implementing [1] - 295:16 implication [1] - 302:16 implicit [2] - 284:20, 305:22 implicitly [2] - 290:13, 290:21 Implied [1] - 295:25 implied [20] - 284:14, 284:19, 285:20, 286:7, 287:7, 287:19, 287:25, 288:17, 289:6, 289:20, 291:4, 292:3, 292:7, 294:8, 295:23, 297:4, 298:19, 304:17, 307:22, 309:7 implies 121 - 231:6, 231:20 importance [2] - 163:15, 239:10

important [16] - 102:14, 113:3, 124:12,

hurt [1] - 232:3

151:15, 156:1, 163:4, 163:9, 179:21, 235:16, 242:17, 242:21, 242:22, 244:15, 245:14, 245:24, 256:15 importantly [3] - 163:25, 178:24, 221:11 importing [1] - 288:8 imports [1] - 272:2 impossible [2] - 263:17, 281:6 **impression** [1] - 109:12 improper [1] - 165:5 impulse [1] - 171:24 IN [1] - 79:1 inactivity [1] - 202:5 inadmissible [1] - 145:19 inadvertent [1] - 305:4 inappropriate [1] - 259:5 inapt [1] - 273:2 **INC** [2] - 79:3, 79:6 Inc [4] - 81:5, 81:6, 121:19, 180:1 include [15] - 84:25, 113:15, 117:11, 117:20, 169:18, 171:16, 192:25, 205:6, 232:3, 250:4, 250:10, 250:11, 260:8, 277:3, 279:22 included [7] - 112:21, 122:3, 285:12, 285:13, 285:14, 286:5 includes [28] - 88:22, 88:25, 89:20, 89:21, 95:7, 95:10, 112:8, 112:9, 112:13, 112:14, 112:17, 112:19, 113:18, 140:10, 153:13, 154:20, 189:13, 190:16, 198:13, 230:25, 231:5, 236:4, 237:6, 250:23, 269:10, 269:12, 269:16, 269:20 including [21] - 114:18, 141:18, 142:4, 142:13, 171:23, 173:22, 190:13, 192:11, 198:23, 203:6, 204:5, 210:19, 214:18, 220:3, 231:21, 234:9, 248:8, 267:25, 273:13, 273:14, 287:14 incomplete [1] - 183:5 inconsistency [1] - 111:1 inconsistent [11] - 110:8, 136:24, 147:2, 147:3, 147:7, 166:7, 166:16, 231:12, 244:3, 245:23, 246:19 incorporate [1] - 162:9 incorporated [2] - 287:4, 311:11 incorporates [2] - 191:24, 284:16 incorporating [1] - 202:24 incorrect [1] - 147:1 increased [1] - 207:5 incredibly [1] - 184:8 indeed [6] - 135:7, 240:25, 251:3, 261:9, 261:18, 266:8 independent [17] - 98:7, 104:2, 104:7, 112:3, 148:2, 152:22, 155:13, 178:25, 179:10, 179:12, 179:13, 179:15, 185:2, 185:5, 205:21, 228:15, 239:6 independently [1] - 242:14 indicated [3] - 212:5, 226:18, 286:11 indicates [1] - 183:14 indicating [1] - 159:10 indicating) [1] - 238:1

indication [4] - 149:8, 176:11, 180:3,

206:8 146:6, 146:15, 148:9, 228:20, 229:1, indirect [1] - 235:5 229:3, 229:8, 230:15, 232:2, 234:19, 237:15, 237:19, 268:21, 268:24, indirectly [3] - 154:2, 176:12, 235:8 indisputably [1] - 199:7 269:25, 298:12 individual [4] - 98:3, 241:10, 246:13 installment [1] - 82:16 individually [2] - 133:18, 158:19 instances [2] - 168:23, 305:20 instead [14] - 125:2, 131:20, 145:8, industrial [2] - 119:16, 119:23 189:18, 194:25, 197:3, 197:12, industry [1] - 119:17 233:21, 238:22, 241:15, 250:22, inexplicable [1] - 272:10 260:7, 260:21, 288:11 inference [12] - 128:15, 128:16, 128:24, instruct [1] - 261:7 129:1, 210:4, 210:13, 210:21, 210:24, instruction [1] - 133:4 211:7, 211:14, 289:3 instructions [2] - 85:4, 237:4 inferences [8] - 99:25, 100:4, 102:2, 105:16, 210:9, 210:11, 239:13, 248:1 instrument [1] - 162:5 insufficient [5] - 160:4, 177:17, 179:20, inferred [1] - 305:20 197:16, 263:24 inform [2] - 151:14, 197:20 insurance [1] - 261:2 information [17] - 135:10, 151:2, Insurance [1] - 165:21 154:10, 154:18, 176:8, 176:10, integral [1] - 235:25 178:18, 178:20, 183:22, 201:15, intend [3] - 84:19, 206:1, 206:18 209:23, 215:22, 215:24, 221:14, 224:10, 226:23, 294:23 intended [24] - 108:16, 156:18, 160:1, informed [1] - 291:9 160:12, 160:13, 160:18, 161:1, infringe [8] - 113:21, 132:9, 133:21, 163:14, 163:20, 164:11, 175:24, 142:20, 201:16, 236:19, 288:11, 310:1 176:23, 177:3, 177:10, 184:7, 205:2, 206:23, 242:24, 243:16, 247:1, 271:6, infringed [2] - 201:3, 288:6 271:18, 285:22, 293:24 infringement [76] - 83:18, 84:7, 84:13, intending [1] - 213:9 86:18, 89:1, 91:3, 93:3, 93:12, 95:19, 121:3, 126:14, 127:1, 127:14, 129:10, intent [9] - 126:20, 213:1, 213:5, 213:8, 132:21, 137:22, 151:22, 199:25, 213:14, 213:20, 287:2, 295:18, 298:24 200:3, 201:4, 201:6, 202:11, 202:14, intention [1] - 286:19 202:21, 203:1, 203:5, 204:7, 219:16, intentional [1] - 213:1 224:14, 227:23, 227:25, 228:2, intentionally [1] - 213:7 228:11, 230:22, 231:25, 232:20, interact [1] - 270:1 232:22, 268:1, 268:6, 268:17, 279:23, interacted [1] - 221:24 284:13, 286:3, 286:20, 287:15, interacting [3] - 116:17, 154:1, 154:2 287:23, 288:3, 289:12, 289:17, interactions [1] - 116:19 290:22, 291:8, 293:7, 293:9, 293:18, interest [1] - 104:12 294:12, 296:18, 297:3, 297:7, 297:23, interested [1] - 203:24 298:10, 298:15, 299:5, 299:6, 299:12, interesting [3] - 139:11, 188:13, 310:10 301:3, 302:16, 302:19, 304:7, 304:20, interface [3] - 152:10, 152:14, 228:12 304:24, 306:1, 310:24, 311:19, 311:21 interfaces [1] - 228:11 infringer [2] - 250:6, 288:9 interfacing [1] - 152:19 infringes [1] - 288:13 interior [2] - 153:12, 269:13 infringing [27] - 131:8, 132:22, 133:2, interjects [1] - 133:17 210:13, 210:16, 250:3, 250:7, 268:23, internal [1] - 234:19 269:24, 286:1, 287:22, 288:8, 288:10, internally [1] - 210:23 288:24, 289:2, 289:22, 290:7, 291:2, interplays [1] - 276:14 296:2, 296:22, 303:2, 306:15, 306:16, interpret [1] - 293:21 310:5, 310:8, 310:15 interpretation [5] - 91:14, 231:5, inherent [1] - 277:5 271:25, 276:22, 300:24 inherently [2] - 276:20, 277:2 interpreted [1] - 212:8 initial [9] - 160:9, 161:9, 164:25, 179:19, interpreting [1] - 276:18 183:7, 184:12, 202:10, 204:17, 218:23 interrogatories [1] - 210:18 initiate [1] - 289:14 interrogatory [3] - 201:1, 206:14, inner [1] - 105:1 258:21 input [6] - 115:5, 115:6, 115:11, 115:15, interrupt [5] - 137:6, 176:5, 191:2, 115:21, 279:20 268:7, 306:20 inquiring [2] - 224:18, 299:4 intervene [1] - 291:12 inquiry [3] - 120:18, 195:18, 277:16 intervening [1] - 235:9 inside [20] - 85:5, 85:23, 86:5, 145:11,

investigation [2] - 224:12, 224:13

investment [1] - 263:4

invocation [1] - 291:15

intervention [1] - 264:15 introduced [2] - 208:25, 219:13 introducing [1] - 220:3 introduction [1] - 228:16 introductory [1] - 155:24 invalid [39] - 112:23, 121:2, 121:6, 121:15, 122:6, 123:22, 125:6, 125:15, 127:22, 132:1, 132:4, 135:2, 150:18, 150:21, 158:6, 161:15, 165:10, 176:4, 177:8, 184:5, 185:2, 185:12, 185:14, 188:12, 188:22, 199:7, 203:9, 204:23, 205:1, 207:14, 215:5, 215:8, 217:4, 255:4, 256:25, 259:17, 259:24, 262:7, 278:6 invalidate [1] - 113:13 invalidates [1] - 199:12 invalidating [2] - 125:18, 199:7 invalidity [12] - 99:11, 99:12, 99:21, 125:20, 160:16, 167:5, 185:5, 201:9, 201:10, 214:13, 218:7 invented [12] - 96:10, 97:1, 100:1, 100:5, 138:7, 151:20, 186:15, 195:6, 195:16, 197:19, 239:15, 242:10 invention [88] - 83:23, 96:8, 96:19, 97:7, 97:12, 97:20, 97:24, 99:4, 99:13, 99:16, 100:5, 100:7, 100:11, 105:5, 107:5, 107:8, 107:9, 107:23, 108:1, 108:21, 109:14, 111:12, 116:9, 144:4, 144:9, 150:17, 151:16, 151:19, 155:11, 155:23, 155:25, 156:7, 156:12, 156:15, 158:6, 158:11, 160:24, 161:9, 161:10, 161:19, 163:13, 164:3, 164:20, 167:1, 167:8, 167:15, 167:16, 167:21, 168:14, 168:23, 169:2, 170:20, 170:23, 171:7, 175:25, 176:2, 179:14, 184:4, 184:13, 185:3, 185:25, 186:4, 188:2, 195:7, 195:14, 196:5, 196:23, 218:14, 218:15, 223:3, 223:12, 238:20, 241:11, 244:1, 249:25, 268:22, 269:4, 269:5, 269:6, 269:9, 269:10, 270:10, 270:23, 271:15, 280:8, 288:10 inventions [1] - 169:10 Inventor [2] - 162:24, 175:14 inventor [27] - 97:11, 101:20, 101:24, 101:25, 104:7, 108:21, 108:24, 111:17, 160:3, 160:4, 160:5, 163:4, 163:5, 163:12, 177:16, 192:18, 194:11, 197:18, 215:15, 221:11, 221:18, 222:18, 254:14, 275:12, 276:9 inventor's [5] - 97:13, 97:14, 97:15, 97:18, 98:14 inventors [3] - 156:16, 221:24 inventorship [1] - 109:21 inverse [11] - 90:8, 90:25, 91:1, 194:17, 194:18, 195:9, 275:5, 275:8, 275:18, 277:8, 277:9 invert [1] - 118:4 investigated [2] - 212:6, 311:14

investigating [1] - 214:2

invoice [1] - 105:25 invoices [10] - 105:21, 105:22, 106:8, 180:14, 180:17, 180:23, 181:1, 270:17 invoke [1] - 291:23 invoked [1] - 285:3 involved [5] - 133:16, 141:1, 161:25, 171:14, 221:2 involving [1] - 297:25 inward [2] - 85:22, 89:24 irrelevant [6] - 195:15, 197:17, 209:2, 218:14, 236:23, 288:11 Irwin [1] - 286:15 issue [160] - 83:18, 83:19, 83:23, 83:24, 84:12, 89:2, 89:22, 91:4, 91:18, 91:24, 95:2, 100:24, 109:20, 109:23, 111:5, 111:11, 111:12, 113:23, 114:18, 115:12, 116:21, 118:10, 119:13, 120:19, 120:21, 122:19, 124:21, 126:2, 126:9, 128:4, 133:13, 134:4, 137:16, 137:20, 140:25, 141:11, 144:18, 144:21, 150:19, 150:24, 155:22, 158:1, 160:20, 160:21, 161:4, 161:5, 163:11, 163:18, 163:21, 163:22, 164:6, 164:24, 165:1, 165:13, 168:2, 168:9, 173:13, 177:6, 177:8, 177:10, 177:11, 182:21, 186:6, 187:13, 188:3, 190:14, 190:24, 193:9, 193:18, 194:2, 195:3, 197:17, 202:18, 203:17, 204:24, 207:23, 208:6, 210:13, 210:22, 212:6, 215:2, 215:18, 218:22, 219:16, 220:1, 220:6, 220:7, 222:16, 222:25, 223:9, 226:2, 227:4, 228:8, 228:10, 229:23, 230:22, 230:23, 231:23, 232:23, 238:20, 239:19, 243:19, 247:5, 249:16, 250:21, 252:9, 253:4, 253:21, 254:8, 256:5, 256:8, 256:16, 256:17, 257:9, 259:13, 259:15, 263:12, 266:4, 266:15, 266:16, 267:23, 267:24, 267:25, 268:2, 268:3, 268:6, 268:17, 268:21, 270:22, 271:24, 272:8, 273:18, 273:25, 274:2, 274:21, 275:2, 276:3, 278:18, 279:24, 285:16, 287:6, 287:22, 292:18, 294:8, 294:9, 297:25, 299:24, 300:1, 301:8, 302:15, 303:7, 303:11, 308:12, 310:4, 311:7, 312:2 issued [7] - 122:13, 124:22, 204:2, 217:7, 255:10, 257:6, 290:17 issues [45] - 83:16, 83:19, 83:21, 84:8, 95:21, 112:1, 134:2, 150:3, 150:12, 150:14, 151:5, 151:15, 153:1, 155:20, 175:2, 186:2, 200:17, 204:10, 209:20, 209:21, 217:16, 218:2, 218:5, 219:19, 219:22, 220:13, 223:5, 223:6, 225:8, 227:23, 227:24, 245:2, 253:17, 256:7, 257:13, 265:19, 267:23, 270:25, 272:21, 281:14, 287:16, 287:17,

308:15, 308:18
issuing [1] - 255:24
item [5] - 85:6, 158:25, 237:1, 237:14, 237:15
items [4] - 152:7, 158:18, 237:2, 237:3
iteration [1] - 293:11
iterations [1] - 273:9
itself [14] - 95:5, 101:11, 113:5, 122:11, 144:23, 157:9, 167:4, 185:15, 205:13, 206:6, 206:25, 214:18, 214:20, 254:15

J

jail [1] - 302:22 January [18] - 79:5, 145:6, 145:13, 148:7, 148:13, 150:2, 157:11, 157:14, 185:22, 185:25, 199:12, 200:14, 215:14, 223:2, 223:15, 223:17, 223:20, 223:23 Jason [2] - 80:10, 81:21 jiggering [1] - 242:12 job [2] - 220:2, 297:1 Johnson [10] - 86:15, 91:11, 129:16, 130:9, 209:4, 209:16, 209:20, 210:1, 261:9, 261:10 joined [7] - 87:9, 235:20, 235:22, 235:24, 236:24, 237:5, 287:7 joined-together [1] - 235:24 joke [1] - 250:15 Jones [1] - 80:10 JUDGE [1] - 79:19 Judge [2] - 110:6, 283:22 judged [2] - 97:8, 251:18 judgment [87] - 81:5, 83:20, 83:22, 84:3, 84:21, 89:1, 92:4, 96:2, 96:4, 96:5, 96:9, 96:22, 99:23, 101:10, 101:22, 103:3, 114:20, 116:21, 117:2, 118:9, 118:12, 120:19, 120:21, 120:24, 122:19, 126:3, 128:8, 128:9, 128:10, 128:13, 128:19, 130:17, 131:21, 132:4, 132:6, 132:8, 135:4, 135:8, 136:1, 136:4, 143:1, 144:16, 144:21, 147:17, 160:16, 160:22, 163:16, 163:24, 164:15, 164:25, 165:3, 165:13, 171:22, 174:7, 175:11, 193:18, 193:24, 194:1, 219:15, 220:7, 223:6, 229:20, 230:20, 230:21, 244:22, 244:25, 247:25, 252:6, 253:4, 256:8, 262:13, 262:15, 263:7, 268:4, 270:5, 271:13, 273:24, 275:24, 275:25, 276:12, 277:10, 279:9, 279:25, 285:15, 292:4, 292:19, 298:9 July [3] - 102:7, 102:19, 103:9 juncture [1] - 137:7 June [6] - 102:9, 162:24, 163:3, 201:5, 227:1, 227:4 juries [1] - 247:22 jurisdiction [1] - 287:13 jurisprudence [1] - 287:18 juror [10] - 97:19, 99:15, 99:17, 99:24,

100:5, 102:1, 117:3, 143:4, 239:8, 239:15

jury [7] - 105:15, 223:21, 227:16, 239:17, 248:1, 248:12, 292:22

K

Kassim [4] - 80:6, 81:23, 212:5, 309:5 keep [5] - 139:7, 161:8, 265:24, 273:2,

keeping [5] - 161:14, 200:10, 203:10, 244:14, 270:10

keeps [3] - 96:12, 96:14, 283:18

Kennedy [1] - 165:21

kept [1] - 105:24

key [10] - 143:6, 153:4, 157:9, 157:15, 254:8, 268:17, 271:3, 288:11, 288:23, 312:2

keyboard [1] - 115:7

killer [5] - 136:8, 136:13, 138:13, 138:16, 139:4

kind [25] - 85:11, 90:12, 117:17, 118:19, 120:2, 120:5, 129:24, 139:11, 143:22, 145:24, 146:9, 146:18, 148:6, 191:4, 242:6, 244:13, 259:23, 261:25, 263:22, 264:3, 264:24, 264:25, 265:13, 293:3, 307:9

kinds [5] - 82:6, 119:18, 145:14, 257:10, 294:13

Klarquist [2] - 80:14, 81:19

Klaus [4] - 86:15, 129:16, 261:9, 261:10 **knob** [35] - 82:24, 86:3, 152:6, 153:7, 153:8, 153:18, 154:2, 155:15, 155:17, 172:11, 228:3, 228:17, 233:17, 233:19, 233:21, 233:24, 234:17, 234:19, 234:23, 243:18, 244:18, 268:23, 268:25, 269:7, 269:9, 269:19, 269:23, 270:2, 271:14, 281:18, 282:5, 305:4

knobs [2] - 170:25, 298:12

knowing [1] - 299:4

knowledge [7] - 149:6, 182:6, 202:1, 287:23, 291:7, 302:3, 302:5

known [6] - 108:8, 252:24, 258:25, 279:11, 291:11, 312:20

knows [7] - 182:22, 297:20, 298:17, 300:12, 300:13, 301:1, 301:13

L

labeled [1] - 85:22 laboratory [2] - 168:17, 168:20 laches [22] - 126:6, 126:11, 126:12, 126:13, 126:18, 131:12, 131:13, 131:14, 202:12, 257:24, 258:1, 258:2, 258:3, 258:8, 259:8, 263:21, 272:3, 272:5, 272:12, 272:15

lack [6] - 131:7, 157:5, 177:2, 214:18, 258:23, 259:1

lacked [1] - 220:11

lacking [6] - 166:13, 170:17, 180:3, 278:3, 285:2, 285:3

lacks [1] - 168:1

laid [1] - 127:5

land [1] - 306:25

landing [1] - 306:23

lands [1] - 306:22

Landvatter [29] - 100:14, 100:20, 103:1, 104:10, 106:4, 108:14, 109:3, 175:13, 177:24, 178:8, 180:19, 181:14, 182:22, 182:25, 183:3, 183:7, 240:21, 241:22, 247:10, 247:11, 247:15, 248:3, 248:19, 248:24, 270:18, 271:21, 280:10, 280:12, 280:17

Landvatter's [11] - 108:17, 109:1, 109:9, 111:8, 175:16, 175:22, 180:10, 181:6, 183:23, 240:5, 248:16

language [53] - 87:18, 88:2, 88:21, 89:18, 93:24, 94:7, 94:8, 94:14, 94:15, 95:3, 113:20, 114:6, 114:12, 119:11, 135:14, 135:15, 140:18, 141:21, 142:7, 151:25, 152:15, 152:21, 154:21, 161:6, 168:5, 168:6, 171:17, 172:9, 174:25, 175:1, 185:18, 190:14, 196:18, 196:20, 219:7, 226:1, 228:16, 230:2, 230:25, 231:4, 233:10, 233:13, 233:18, 234:2, 234:21, 235:11, 235:18, 269:22, 278:19, 278:23,

297:14, 311:2 lapse [1] - 182:18

large [2] - 300:2, 301:24

largely [2] - 131:14, 187:12

larger [2] - 153:9, 299:25

Larson [4] - 286:21, 287:9, 287:18,

last [14] - 82:16, 102:19, 103:9, 105:9, 144:18, 148:17, 154:5, 182:24, 192:2, 214:24, 223:24, 227:22, 256:20, 271:15

lastly [6] - 167:2, 168:23, 177:23, 206:19, 211:7, 211:17

late [22] - 106:19, 122:25, 123:2, 150:24, 160:22, 161:4, 161:13, 162:2, 164:18, 164:24, 165:8, 165:9, 167:3, 167:14, 167:24, 167:25, 170:7, 178:15, 214:15, 230:19, 244:22

late-filed [3] - 160:22, 161:4, 162:2

lateness [1] - 245:16

lateral [1] - 86:21

laterally [3] - 86:10, 86:11

latest [1] - 101:16

launch [3] - 149:20, 223:19

launched [3] - 200:9, 200:13, 226:20 law [49] - 97:6, 112:25, 113:14, 114:2, 156:11, 157:25, 160:3, 160:7, 161:4, 161:5, 161:7, 167:20, 167:23, 167:24, 168:3, 169:3, 177:16, 186:7, 193:10, 195:15, 196:19, 198:21, 207:15, 215:16, 236:1, 249:22, 250:5, 251:15,

253:11, 253:12, 258:7, 271:9, 271:11,

276:12, 284:19, 285:23, 286:8, 286:10, 286:12, 286:17, 287:2, 293:21, 294:2, 296:25, 298:24, 299:3, 299:10, 301:15, 303:10

lawfully [1] - 186:14

lawsuit [12] - 126:18, 126:20, 128:3, 128:5, 131:1, 135:12, 136:8, 203:20, 205:5, 205:16, 205:18, 262:25

lawsuits [2] - 213:22, 287:13

lawyers [1] - 196:1

layers [2] - 269:1, 270:4

leading [1] - 82:20

leaks [2] - 169:14

learned [3] - 126:25, 180:9, 213:23 least [19] - 90:24, 93:25, 95:11, 99:24, 101:23, 102:13, 110:5, 114:21,

121:14, 135:24, 136:2, 138:22,

219:20, 222:1, 229:23, 253:3, 274:18, 280:14, 292:5

leaves [2] - 127:25, 162:11 leaving [1] - 232:25

led [1] - 180:23

ledger [3] - 118:7, 118:13, 118:14 left [12] - 85:21, 86:8, 128:22, 129:7, 189:22, 190:10, 203:22, 238:5, 243:23, 260:18, 274:17, 298:13

left-hand [1] - 243:23

legal [28] - 81:12, 84:12, 88:19, 96:1, 107:1, 107:2, 114:16, 114:18, 129:15, 133:3, 133:5, 140:6, 159:22, 163:23, 170:10, 204:10, 210:3, 251:25, 279:7, 292:1, 302:15, 305:14, 305:15, 305:21, 305:22, 309:1

legally [2] - 124:18, 285:9

length [4] - 108:25, 191:20, 276:25

lengthy [1] - 92:8

lens [13] - 85:16, 86:11, 105:4, 108:8, 153:17, 171:5, 182:5, 250:2, 250:13, 273:3, 281:22, 298:11, 298:12

less [5] - 184:18, 248:22, 283:8, 291:8, 305:19

lesser [1] - 116:7

lethal [1] - 174:21

letter [24] - 128:4, 129:11, 132:24, 133:1, 133:13, 134:3, 134:5, 134:7, 134:8, 134:21, 134:22, 201:5, 201:9, 201:14, 201:16, 201:18, 202:11, 203:1, 203:5, 203:22, 205:16, 206:7, 211:21, 212:5

letters [1] - 96:15 **LEUPOLD** [1] - 79:3

Leupold [216] - 81:5, 81:12, 83:19, 84:3, 84:20, 91:24, 99:13, 99:18, 104:3, 104:5, 104:6, 104:16, 106:3, 106:7, 106:18, 118:11, 122:14, 123:7, 123:25, 126:16, 126:25, 127:14, 127:24, 127:25, 128:2, 128:3, 128:25,

129:4, 129:18, 129:21, 129:25, 130:3, 130:8, 130:14, 130:22, 130:24, 130:25, 131:6, 132:10, 132:11,

life [5] - 169:24, 174:21, 206:20, 206:22,

134:18, 134:24, 135:9, 136:9, 137:22, 138:1, 138:24, 139:7, 143:1, 144:21, 145:3, 148:18, 150:14, 150:17, 155:22, 156:12, 156:18, 157:12, 158:5, 158:12, 159:3, 159:23, 160:17, 160:22, 162:9, 162:25, 163:25, 164:24, 165:18, 166:6, 168:4, 169:8, 172:2, 174:6, 175:8, 175:17, 177:11, 177:14, 178:4, 178:19, 180:10, 183:8, 185:6, 185:23, 186:21, 187:12, 188:5, 190:24, 191:17, 193:3, 193:8, 193:12, 194:8, 197:7, 198:3, 198:20, 199:8, 200:4, 200:21, 201:2, 201:12, 201:14, 201:22, 201:24, 201:25, 202:6, 202:8, 202:15, 203:2, 203:4, 203:17, 203:20, 204:14, 205:2, 205:11, 206:3, 206:13, 207:3, 207:10, 207:15, 208:2, 208:7, 208:25, 209:7, 210:2, 210:3, 210:12, 210:14, 210:22, 210:23, 210:24, 211:7, 211:8, 211:13, 211:17, 212:3, 212:6, 214:1, 214:4, 216:6, 216:13, 218:3, 219:25, 220:10, 220:19, 221:16, 221:21, 222:7, 222:14, 222:24, 223:1, 223:8, 224:18, 225:2, 225:11, 225:17, 225:20, 227:14, 230:3, 230:19, 231:2, 239:12, 242:1, 244:21, 244:25, 245:4, 254:13, 254:15, 258:14, 258:20, 259:19, 259:20, 259:23, 259:24, 260:1, 260:11, 260:20, 260:21, 260:25, 261:1, 261:5, 261:17, 262:8, 262:17, 262:19, 262:21, 262:23, 262:24, 263:10, 266:7, 266:12, 268:18, 270:6, 270:12, 271:16, 273:8, 273:15, 274:1, 284:8, 291:12, 292:5, 292:20, 292:25, 293:18, 293:22, 293:25, 294:9, 295:19, 303:8, 310:16, 310:24, 311:19, 311:21 Leupold's [60] - 84:18, 99:25, 100:3, 100:17, 102:2, 102:3, 104:5, 104:24, 105:16, 106:1, 118:6, 120:19, 121:18, 124:2, 127:20, 129:11, 135:13, 156:7, 171:9, 181:9, 182:14, 183:15, 202:5, 204:17, 209:22, 211:5, 212:12, 215:25, 218:5, 218:19, 219:2, 219:14, 219:15, 220:15, 221:1, 221:5, 222:18, 222:19, 223:7, 224:11, 225:7, 228:1, 229:25, 231:9, 237:7, 239:14, 248:1, 253:1, 253:9, 254:12, 260:18, 261:15, 265:18, 266:8, 270:23, 271:11, 271:12, 291:2, 296:8, 305:1 level [2] - 177:17, 213:11 levels [1] - 168:7 liability [12] - 285:23, 286:20, 302:16, 306:22, 306:25, 307:8, 307:10, 307:25, 308:6, 308:7, 308:18, 309:12 liable [2] - 308:3, 308:4 liberally [2] - 286:12, 305:19 license [2] - 127:15, 225:19 licensing [3] - 129:10, 129:12, 257:18

244:1 lifejacket [1] - 119:15 lifejackets [1] - 119:14 lifetime [1] - 220:22 light [5] - 85:12, 150:7, 152:10, 152:18, 239.8 **LIGHTFORCE** [1] - 79:6 Lightforce [1] - 81:6 lightly [1] - 286:12 likewise [1] - 188:22 limit [1] - 190:16 limitation [8] - 98:15, 140:19, 142:1, 235:23, 259:4, 259:9, 259:10, 280:4 limitations [4] - 98:15, 126:16, 235:25, 258:17 limited [13] - 91:15, 91:20, 92:1, 92:18, 92:22, 93:13, 93:19, 93:22, 94:3, 171:24, 185:19, 198:14, 219:19 limiting [4] - 140:23, 141:6, 142:14, 190:14 line [9] - 85:10, 87:5, 123:20, 125:2, 133:11, 133:12, 159:18, 191:18 linearly [1] - 171:1 lines [6] - 105:9, 108:19, 121:22, 174:25, 246:24, 270:7 lining [1] - 151:24 link [5] - 158:20, 311:2, 311:6, 311:10, 311.12 linker [1] - 171:2 linking [1] - 312:19 links [1] - 155:5 listed [1] - 215:15 listen [1] - 254:1 listened [1] - 266:2 lists [1] - 268:12 litany [1] - 119:24 literally [2] - 116:4, 300:4 litigation [12] - 121:12, 122:21, 123:5, 123:6, 131:21, 131:22, 132:14, 132:17, 132:25, 135:1, 258:22, 291:8 live [1] - 101:7 LLP [3] - 80:2, 80:6, 80:14 loading [1] - 171:24 located [3] - 234:2, 234:19, 235:2 location [5] - 154:10, 215:24, 216:5, 217:1, 217:11 locations [3] - 193:2, 196:11, 196:19 Lochner [2] - 251:3, 279:5 lock [1] - 305:3 locking [4] - 82:24, 281:6, 281:18, 282:5 logic [1] - 205:25 logically [1] - 289:3 logo [2] - 250:14, 250:15

long-range [3] - 136:17, 146:17, 264:21

98:8, 100:9, 104:22, 116:10, 116:15,

longitudinal [2] - 94:12, 154:18

look [42] - 82:1, 93:24, 94:1, 97:16,

118:12, 123:1, 125:16, 141:12,

152:15, 152:21, 152:24, 157:8, 158:13, 168:3, 169:3, 181:6, 182:25, 184:9, 208:10, 212:18, 214:6, 221:7, 221:13, 222:2, 223:24, 226:21, 228:24, 229:10, 229:25, 231:16, 236:11, 248:4, 248:6, 254:8, 282:19, 294:18, 303:22 Look [1] - 201:17 looked [11] - 94:23, 152:18, 161:8, 162:12, 176:13, 189:20, 201:15, 226:1, 237:3, 237:17, 260:5 Looking [1] - 255:13 looking [21] - 101:14, 114:25, 117:1, 118:2, 126:8, 151:20, 154:23, 170:11, 170:12, 181:20, 194:22, 195:11, 203:17, 218:4, 228:2, 229:13, 230:7, 237:1, 275:15, 280:13, 308:2 looks [6] - 86:22, 106:8, 127:16, 158:11, 205:19, 297:12 loosely [1] - 297:10 Loral [1] - 98:21 lose [1] - 165:4 loses [1] - 163:23 losing [1] - 175:2 loss [1] - 205:15 lost [3] - 95:4, 293:19, 310:6 low [1] - 171:20 luck [1] - 250:16 lunch [2] - 184:21, 185:1 M

machine [2] - 264:9, 264:14 Madey [1] - 295:24 magazines [1] - 225:1 Mahurkar [2] - 99:7, 239:12 mail [4] - 127:20, 130:22, 136:10, 260:16 mails [16] - 127:19, 145:19, 148:18, 148:21, 148:23, 149:12, 149:23, 214:1, 214:4, 224:11, 224:16, 225:9, 226:5, 226:7, 266:12, 266:13 maintained [2] - 104:4, 137:1 major [1] - 154:5 majority [3] - 113:16, 284:21, 291:22 maker [2] - 177:23, 262:10 manage [1] - 174:2 manager [1] - 81:12 mandated [1] - 163:16 manipulations [1] - 153:18 manner [4] - 94:17, 126:19, 154:4, 230:21 manually [2] - 154:6, 233:25 manufacture [1] - 296:1 manufacturer [1] - 226:24 manufacturers [1] - 159:13 map [1] - 137:21 March [20] - 96:11, 96:12, 99:16, 100:1, 101:19, 102:10, 136:18, 136:22, 147:24, 157:21, 157:25, 185:4,

199:22, 200:16, 203:5, 211:1, 226:15, 226:16, 227:3, 227:14 MARCO [1] - 79:18 mark [3] - 258:14, 259:2, 259:3 marked [3] - 206:15, 303:15, 312:5 Marker [1] - 110:6 market [8] - 133:21, 133:22, 136:22, 200:18, 206:20, 214:3, 226:7, 308:8 marketing [1] - 99:3 markets [1] - 289:24 marking [9] - 208:21, 257:13, 258:11, 258:15, 258:17, 258:20, 258:22, 258:23, 259:1 markings [1] - 206:13 Markman [5] - 91:19, 93:15, 141:7, 142:16, 305:2 marks [1] - 157:15 Mary [2] - 80:9, 81:22 mask [2] - 98:24, 99:1 Massachusetts [1] - 216:8 massive[1] - 204:7 matched [2] - 178:5, 178:6 material [3] - 127:8, 194:2, 196:23 materials [3] - 122:11, 176:6, 293:8 matter [20] - 81:5, 95:14, 114:13, 115:18, 132:10, 132:11, 155:20, 168:25, 170:5, 174:14, 175:9, 197:1, 197:15, 197:18, 253:12, 255:19, 257:5, 283:18, 295:12, 303:12 mattered [1] - 134:5 mean [14] - 84:16, 87:19, 98:4, 113:19, 174:21, 191:13, 234:10, 234:13, 253:13, 285:10, 298:9, 298:13, 299:16, 310:4 meaning [9] - 91:18, 91:23, 91:25, 92:12, 93:22, 95:25, 192:8, 280:2, means [8] - 88:12, 91:14, 191:10, 191:13, 253:7, 253:10, 285:10, 285:12 meant [4] - 87:22, 93:7, 293:4, 299:10 measuring [1] - 107:20 mechanical [9] - 107:5, 116:9, 116:13, 116:20, 170:8, 173:20, 187:7, 242:12, 281:19 mechanism [17] - 96:11, 97:2, 100:21, 112:11, 146:13, 146:25, 152:3, 174:10, 195:9, 218:16, 235:17, 235:19, 241:19, 243:18, 244:14, 273:4 mechanisms [1] - 162:8 medical [1] - 120:1 meet [11] - 100:10, 125:4, 128:17, 128:18, 128:19, 156:18, 160:2, 177:14, 286:9, 287:20, 295:20 meeting [1] - 270:15 meets [1] - 112:12 memories [1] - 179:23 memory [6] - 148:25, 178:4, 179:10, 179:13, 182:19 mention [2] - 294:4, 310:25 mentioned [7] - 203:22, 219:7, 239:11,

274:20, 275:17, 276:1, 291:19 mentioning [1] - 295:22 mentions [1] - 265:18 mercy [1] - 214:17 mere [2] - 99:2, 168:24 merely [12] - 110:23, 190:15, 191:20, 194:17, 194:18, 234:3, 245:1, 247:2, 263:15, 274:24, 275:4, 286:8 merging [2] - 157:5, 257:23 merit [1] - 212:7 merits [2] - 135:4, 298:9 message [2] - 127:25, 260:18 met [8] - 111:22, 181:10, 239:16, 243:25, 245:2, 287:22, 291:2, 295:13 metadata [3] - 147:19, 148:1, 148:4 metal [1] - 236:20 metallic [2] - 88:5, 88:14 meticulous [2] - 147:9, 147:13 meticulously [1] - 137:1 mic [2] - 246:8, 292:9 Middle [1] - 288:20 middle [10] - 93:16, 159:1, 160:21, 190:9, 209:11, 209:19, 236:21, 238:10, 282:22, 303:18 Middleton [1] - 80:12 might [30] - 88:4, 90:10, 96:21, 116:18, 127:15, 127:16, 131:6, 144:10, 158:1, 168:8, 179:6, 181:8, 182:10, 196:19, 210:12, 211:1, 241:8, 249:6, 250:12, 250:15, 270:13, 270:19, 274:8, 280:25, 300:22, 300:24, 309:11, 309:18, 309:24 Mikael [2] - 80:17, 81:11 mil [2] - 294:25, 295:2 military [10] - 264:8, 289:23, 293:2, 293:12, 294:1, 294:2, 296:10, 299:10, 300:1, 301:15 millions [1] - 300:2 mind [14] - 161:8, 161:14, 175:7, 200:10, 203:10, 211:5, 211:6, 216:7, 242:9, 244:15, 247:17, 270:10, 304:14, 305:17 minds [2] - 156:15, 267:18 mindsets [1] - 218:4 minimum [2] - 120:20, 253:3 minor [1] - 107:12 minute [3] - 138:4, 185:18, 186:2 minutes [4] - 133:24, 137:8, 182:19, 254:3 mischaracterization [1] - 246:23 misdescribed [1] - 211:20 misidentified [1] - 248:19 mislead [2] - 129:19, 213:1 misleading [37] - 127:6, 127:8, 130:20, 130:21, 131:20, 202:20, 204:12, 204:15, 204:19, 205:1, 205:22, 206:7, 206:24, 207:17, 208:8, 210:7, 210:8, 211:16, 212:24, 212:25, 213:4, 213:7, 213:12, 213:13, 261:16, 261:17, 262:1, 262:2, 262:3, 263:6, 272:10

misled [3] - 129:4, 130:3, 130:8 miss [2] - 82:1, 174:15 missed [2] - 82:2, 95:25 missing [6] - 140:12, 140:14, 166:16, 203:18, 214:11, 284:18 misstatement [1] - 110:24 mistake [6] - 110:24, 215:21, 216:11, 216:18, 216:23, 254:13 mistaken [1] - 261:20 model [8] - 96:13, 296:4, 296:7, 296:10, 296:17, 300:16, 310:20, 310:22 models [2] - 296:11, 310:2 modifications [1] - 196:16 modify [3] - 143:11, 143:12, 144:11 moment [4] - 84:8, 161:23, 265:17, 272:23 moments [1] - 94:24 money [3] - 274:17, 287:14, 300:10 MoneyIN [1] - 140:7 monitor [1] - 85:9 month [1] - 147:15 months [3] - 157:23, 200:7, 261:6 moot [1] - 110:13 morning [7] - 81:2, 81:9, 82:12, 83:16, 151:23, 223:1, 226:14 morph [1] - 152:4 Morse [1] - 186:14 mortar [1] - 264:25 most [10] - 83:16, 121:17, 152:23, 157:18, 169:22, 241:20, 247:7, 247:22, 290:14, 294:19 mostly [1] - 131:13 motion [49] - 100:3, 102:2, 102:3, 102:4, 117:2, 128:10, 136:1, 154:25, 156:21, 156:25, 157:1, 160:16, 164:1, 164:15, 164:25, 185:21, 186:3, 209:2, 210:2, 210:5, 210:9, 210:10, 219:14, 219:15, 220:1, 223:7, 231:9, 239:14, 245:1, 245:3, 245:4, 245:9, 253:1, 265:22, 267:23, 267:24, 267:25, 270:6, 270:24, 271:1, 271:3, 273:1, 273:24, 274:2, 294:3 MOTION [1] - 79:15 motions [11] - 81:4, 83:22, 99:23, 120:23, 128:8, 137:24, 214:25, 218:6, 222:16, 265:23, 298:9 motivated [1] - 144:12 motivation [1] - 294:11 mount [2] - 169:18, 187:21 mounted [15] - 94:12, 94:16, 94:17, 154:17, 154:19, 162:15, 162:16, 174:1, 231:19, 235:3, 235:5, 235:8, 235:9, 264:10, 269:11 mounting [6] - 95:15, 234:24, 234:25, 235:1, 235:6, 244:5 mouse [6] - 115:6, 115:14, 115:21, 115:24, 116:1, 116:2 mouth [2] - 87:13, 172:3 movable [5] - 153:25, 155:3, 155:6, 155:8, 155:16

move [14] - 82:23, 94:17, 95:23, 108:8, 126:3, 139:14, 155:8, 171:3, 174:14, 176:24, 229:17, 243:18, 280:23 moved [16] - 96:9, 150:12, 150:14, 163:25, 167:19, 171:2, 215:2, 218:2, 219:15, 223:5, 224:15, 267:24, 292:18, 292:19, 292:21 movement [6] - 86:21, 94:12, 154:18, 162:14, 174:18 moves [4] - 94:20, 153:22, 154:4, 155:7 moving [23] - 83:20, 84:1, 84:3, 84:20, 86:13, 87:2, 91:3, 110:10, 111:13, 137:23, 138:1, 139:8, 139:18, 142:25, 143:1, 161:11, 169:12, 169:16, 170:24, 182:5, 243:22, 247:5, 254:6 MR [140] - 81:9, 81:13, 81:14, 81:15, 81:16, 81:19, 81:21, 81:23, 82:15, 83:2, 83:5, 83:8, 83:14, 84:7, 89:5, 89:10, 89:16, 90:4, 90:15, 90:23, 91:3, 91:6, 93:1, 95:6, 95:10, 95:18, 95:21, 96:7, 115:10, 137:15, 137:19, 138:11, 139:15, 139:18, 150:7, 150:10, 151:7, 151:10, 151:13, 155:22, 176:11, 176:22, 177:2, 184:19, 184:24, 191:8, 191:14, 192:5, 192:8, 192:17, 199:16, 199:18, 213:3, 213:11, 213:15, 213:17, 214:24, 218:1, 222:23, 227:22, 228:22, 229:15, 229:22, 232:11, 232:14, 233:8, 234:12, 234:16, 237:22, 238:1, 238:10, 238:15, 238:19, 243:4, 243:12, 246:8, 254:5, 266:1, 267:14, 267:17, 268:8, 268:12, 268:16, 272:19, 272:20, 272:24, 274:12, 274:17, 278:9, 278:11, 278:14, 278:17, 280:24, 280:25, 281:5, 281:18, 282:11, 283:3, 283:5, 283:6, 283:10, 283:13, 283:16, 283:19, 283:23, 283:25, 284:2, 284:4, 292:13, 292:14, 292:17, 295:8, 295:15, 296:24, 297:2, 299:19, 301:11, 301:20, 302:8, 302:10, 306:8, 306:10, 306:25, 307:6, 307:11, 307:14, 308:5, 308:13, 308:19, 308:22, 308:25, 309:3, 309:5, 309:17, 309:18, 311:23, 312:15, 313:2, 313:5, 313:6 MS [1] - 81:22 multi [1] - 220:1 multi-hundred [1] - 220:1

multiple [9] - 170:24, 201:10, 210:18, 216:3, 217:3, 225:5, 236:5, 264:10, 265:23

must [12] - 127:9, 147:24, 159:24, 160:4, 160:10, 162:6, 171:18, 249:20, 258:6, 266:22, 267:6, 294:25

Mutual [1] - 165:21 **muzzle** [2] - 264:12, 264:22

Ν

name [8] - 224:8, 266:22, 266:24, 267:1, 267:2, 267:19, 267:21, 268:13 named [1] - 192:18 names [2] - 224:7, 226:8 Nancy [1] - 314:11 nancy [1] - 80:18 NANCY [1] - 314:12 narrow [2] - 91:13, 91:15 narrower [4] - 88:4, 92:15, 112:3, 251:22 narrows [1] - 92:19 Nasaka [3] - 288:18, 289:7, 291:13 Nathan [3] - 80:5, 81:13, 133:18 national [2] - 293:10, 294:25 natural [1] - 289:3 nature [2] - 168:14, 308:22 Navy [4] - 293:6, 293:7, 293:13, 300:8 near [4] - 104:16, 179:14, 233:14, 264:20 near-contemporaneous [1] - 104:16 nearly [4] - 158:11, 206:19, 208:14, 219:17 necessarily [6] - 116:15, 236:14, 248:12, 298:3, 298:5, 310:1 necessary[11] - 88:16, 107:16, 111:6, 121:13, 141:5, 141:14, 161:16, 163:22, 164:7, 247:3, 299:16 **need** [50] - 92:25, 95:2, 98:7, 108:10, 111:11, 132:21, 147:18, 151:3, 151:19, 151:21, 151:22, 156:8, 156:23, 159:22, 161:18, 168:15, 169:25, 170:25, 208:7, 210:7, 213:11, 226:16, 232:2, 240:3, 244:18, 246:15, 250:24, 251:5, 251:15, 253:25, 262:23, 281:23, 282:15, 286:3, 286:5, 289:13, 293:16, 297:2, 297:16, 297:19, 299:11, 300:4, 301:2, 303:4, 306:13, 309:20, 310:1, 310:11, 310:15, 312:24 needed [16] - 107:19, 161:1, 163:2, 163:22, 164:6, 164:12, 164:14, 167:22, 168:1, 168:10, 169:11, 171:10, 259:24, 271:3, 289:19, 293:8 needs [17] - 88:5, 88:14, 97:25, 165:6, 165:25, 166:2, 194:8, 195:16, 234:10, 234:13, 261:25, 268:20, 279:24, 288:1, 302:14, 305:14 negative [1] - 209:8 negotiating [1] - 299:3 negotiations [3] - 129:8, 129:12, 296:21 Net [1] - 140:7 never [29] - 118:17, 119:18, 124:22, 128:23, 130:8, 131:20, 132:11, 132:16, 136:11, 163:21, 164:6,

164:14, 175:18, 178:2, 181:21, 182:8,

183:23, 206:11, 206:14, 206:23,

212:18, 220:14, 247:17, 261:18,

264:8, 271:21, 273:11, 273:16

new [16] - 163:5, 163:6, 166:10, 167:14, 184:16, 189:7, 217:6, 242:7, 242:10, 242:13, 242:21, 250:14, 253:24, 256:17, 312:22, 312:23 next [23] - 85:20, 87:2, 96:7, 131:8, 133:10, 137:19, 137:24, 146:14, 152:12, 153:25, 158:14, 174:15, 174:25, 201:24, 210:24, 228:24, 238:19, 249:16, 253:17, 254:1, 280:23, 281:5, 313:7 nexus [1] - 261:25 nice [1] - 109:3 nickel [1] - 282:10 **NIGHTFORCE** [2] - 79:7, 79:7 Nightforce [311] - 83:25, 84:2, 84:25, 85:4, 86:16, 86:25, 89:23, 91:20, 93:25, 94:20, 96:8, 99:10, 99:11, 99:19, 100:6, 101:1, 102:11, 103:19, 109:2, 109:15, 109:25, 110:4, 110:10, 112:17, 112:25, 114:3, 114:5, 116:14, 117:21, 118:9, 118:14, 120:21, 120:22, 120:25, 121:5, 121:11, 121:20, 123:7, 123:23, 123:25, 125:24, 126:4, 126:21, 127:8, 127:12, 127:14, 128:22, 129:3, 129:4, 129:19, 130:3, 130:7, 130:8, 130:11, 130:19, 130:21, 131:6, 132:8, 132:14, 132:19, 132:24, 134:19, 136:4, 136:8, 136:11, 136:14, 136:16, 137:23, 137:25, 138:13, 138:15, 138:23, 139:8, 140:3, 140:9, 142:25, 143:2, 143:6, 143:16, 143:23, 144:16, 144:19, 144:22, 144:24, 145:5, 145:7, 145:9, 145:15, 146:14, 146:16, 146:19, 146:20, 146:21, 147:18, 148:8, 148:15, 148:17, 149:23, 149:24, 150:12, 152:23, 164:15, 164:23, 165:6, 177:7, 191:22, 199:24, 200:1, 200:2, 200:9, 200:12, 200:18, 201:2, 201:8, 201:19, 202:3, 202:22, 203:8, 203:12, 203:16, 203:23, 204:3, 204:8, 205:16, 206:4, 206:12, 206:17, 206:20, 206:23, 207:3, 207:5, 207:9, 207:25, 208:3, 208:11, 210:12, 210:14, 210:16, 210:19, 210:20, 210:23, 210:25, 211:4, 211:13, 211:21, 212:11, 213:1, 213:9, 214:25, 215:2, 218:2, 223:4, 224:13, 226:11, 226:19, 226:24, 227:7, 228:20, 232:19, 232:24, 234:17, 235:7, 235:13, 236:7, 237:3, 238:21, 238:22, 238:23, 239:2, 239:17, 239:20, 239:23, 240:25, 241:5, 241:14, 243:22, 244:16, 245:2, 245:3, 245:7, 245:12, 246:21, 247:6, 247:14, 247:19, 248:9, 248:15, 248:16, 249:11, 249:17, 250:1, 250:19, 251:12, 252:2, 252:11, 253:4, 253:6, 253:20, 254:10, 254:11, 256:4, 256:16, 256:25, 257:20, 258:11, 258:20, 258:23, 258:25, 259:15,

259:22, 259:25, 260:4, 260:7, 260:15, 260:16, 260:20, 260:22, 260:25, 261:23, 262:10, 262:21, 262:24, 263:1, 263:3, 263:12, 263:20, 264:2, 264:5, 265:18, 265:23, 266:15, 266:18, 279:16, 280:4, 282:1, 284:10, 284:12, 284:22, 285:1, 285:15, 286:10, 288:17, 288:22, 289:21, 290:1, 290:6, 290:14, 290:16, 290:18, 291:1, 291:6, 291:9, 291:23, 292:6, 292:19, 293:14, 293:15, 293:17, 293:20, 295:2, 295:19, 296:3, 296:4, 296:6, 296:7, 296:11, 296:13, 296:16, 297:21, 298:10, 298:20, 298:22, 300:10, 300:14, 300:16, 301:13, 302:1, 303:3, 303:7, 303:13, 303:19, 304:16, 304:21, 304:23, 305:8, 305:9, 305:10, 306:22, 307:5, 307:8, 307:16, 307:17, 307:25, 308:3, 309:19, 310:3, 310:12, 310:14, 310:16, 310:18, 310:21, 310:23, 311:17, 311:20, 312:1, 312:2, 312:17, 312:19 Nightforce's [78] - 84:22, 84:24, 86:14, 87:2, 93:18, 95:23, 97:14, 100:4, 102:3, 102:4, 106:18, 106:20, 112:16, 113:6, 113:11, 117:2, 118:13, 118:14, 123:11, 125:8, 127:2, 127:20, 128:2, 128:10, 128:22, 129:13, 129:17, 130:14, 133:25, 134:17, 135:25, 136:3, 138:12, 140:16, 142:23, 150:4, 160:16, 193:1, 209:1, 209:4, 211:6, 218:25, 220:11, 222:5, 222:18, 228:12, 232:8, 239:14, 241:9, 245:4, 245:9, 247:25, 248:5, 248:7, 248:18, 252:5, 253:2, 253:19, 257:9, 257:23, 259:14, 261:10, 270:11, 273:24, 273:25, 279:10, 285:6, 285:8, 288:4, 290:9, 291:15, 292:10, 293:3, 294:3, 294:16, 294:23, 303:14, 308:6 Ninth [1] - 80:7 **non** [24] - 93:3, 93:12, 111:19, 111:20, 113:23, 114:1, 125:19, 143:12, 190:14, 200:9, 200:14, 227:25, 228:11, 250:2, 250:3, 286:1, 295:3, 303:2, 306:16, 309:23, 310:5, 310:8, 310:15 non-claimed [1] - 250:2 non-government [1] - 295:3 non-hindsight [1] - 143:12 non-infringement [4] - 93:3, 93:12, 227:25, 228:11 non-infringing [8] - 250:3, 286:1, 303:2, 306:16, 310:5, 310:8, 310:15 non-limiting [1] - 190:14 non-prec [1] - 114:1 non-precedential [1] - 113:23 non-provisional [5] - 111:19, 111:20, 125:19. 200:9. 200:14

non-specific [1] - 309:23

none [11] - 98:13, 98:14, 145:15,

185:20, 186:2, 198:9, 198:10, 250:17, 250:21, 255:3, 270:20 nonetheless [1] - 218:14 nonissue [2] - 211:19, 212:9 nonsense [1] - 166:12 normal [1] - 280:6 North [1] - 288:20 notably [2] - 201:16, 239:2 notch [2] - 117:17, 189:16 note [4] - 156:1, 163:8, 233:9, 267:22 noted [2] - 185:24, 228:16 notes [2] - 123:14, 124:21 noteworthy [1] - 287:11 nothing [37] - 88:13, 94:14, 94:15, 128:1, 130:9, 134:23, 139:24, 146:2, 148:1, 177:11, 178:8, 179:4, 182:15, 182:23, 183:18, 183:22, 194:7, 202:1, 233:17, 236:3, 245:20, 249:24, 260:2, 260:16, 261:8, 261:13, 262:8, 263:14, 265:5, 265:12, 266:5, 274:3, 275:2, 280:6, 285:21, 298:13, 311:14 **notice** [5] - 206:3, 217:16, 255:13, 260:25, 289:18 **notify** [1] - 291:12 noting [1] - 220:13 notion [1] - 132:17 notwithstanding [3] - 140:3, 149:12, 297:22 novel [1] - 120:24 November [4] - 157:23, 159:2, 159:6, 200.6 nub [3] - 152:9, 152:14, 154:23 **number** [21] - 96:14, 101:5, 150:16, 158:18, 188:15, 202:24, 203:5, 204:11, 204:12, 204:13, 210:11, 284:25, 288:6, 288:18, 296:5, 297:21, 300:3, 300:16, 305:16, 310:20, 310:23 numbers [2] - 212:13, 258:14

0

O'Reilly [1] - 186:14 oath [1] - 101:7 objection [2] - 109:21, 173:6 objective [4] - 195:17, 267:8, 277:16, 277:18 objects [1] - 175:2 obligated [2] - 296:13, 297:22 obligation [1] - 311:18 obligations [1] - 304:3 observation [1] - 275:19 observer[1] - 98:7 obtain [1] - 230:21 obtained [5] - 123:4, 125:13, 147:23, 211:24, 226:11 obvious [18] - 142:25, 143:4, 173:23, 174:23, 186:23, 187:2, 196:3, 196:20, 196:23, 196:25, 197:2, 197:11, 197:14, 218:20, 218:25, 221:21, 275:11, 275:19

obviousness [11] - 118:24, 138:3, 143:1, 221:3, 221:5, 244:16, 251:23, 251:24, 265:14, 275:8 occurred [14] - 106:25, 127:13, 148:13, 158:23, 164:9, 175:21, 176:9, 176:10, 176:12, 178:10, 179:14, 181:15, 240:4, 258:22 October [4] - 163:25, 164:16, 244:24, 244:25 OF [2] - 79:2, 79:17 Off-the-record [1] - 274:10 offered [2] - 186:22, 193:20 offering [2] - 227:6, 288:7 offerings [2] - 202:23, 207:6 offers [1] - 252:9 offhand [2] - 117:15, 117:22 Office [12] - 123:25, 125:1, 193:14, 215:22, 215:23, 216:10, 216:18, 216:19, 216:22, 217:2, 217:17, 255:10 Office's [5] - 124:2, 124:6, 124:19, 216:17, 257:7 offices [1] - 104:25 Official [1] - 314:13 offset [1] - 141:18 often [3] - 111:17, 111:23 oftentimes [2] - 160:6, 300:7 old [6] - 105:23, 159:1, 160:6, 222:23, 242:22, 256:18 older [1] - 131:11 once [10] - 84:12, 85:17, 199:12, 203:12, 203:22, 216:4, 239:16, 258:5, 263:20, 271:15 one [159] - 82:21, 84:20, 90:10, 96:8, 96:21, 96:22, 103:19, 106:5, 106:6, 106:17, 110:5, 114:12, 120:9, 124:1, 131:17, 133:18, 133:19, 137:2, 143:25, 145:2, 145:22, 145:23, 146:16, 147:7, 149:11, 150:16, 152:22, 154:12, 155:5, 156:11, 156:13, 161:15, 161:18, 163:6, 165:12, 166:21, 166:24, 167:22, 168:3, 169:7, 169:8, 176:14, 179:25, 180:24, 181:3, 181:5, 181:6, 183:2, 183:4, 183:5, 183:6, 185:1, 185:16, 186:14, 187:8, 187:11, 187:19, 188:7, 189:11, 189:14, 189:22, 191:4, 195:3, 195:22, 196:25, 198:8, 199:1, 199:2, 199:11, 200:22, 201:10, 204:11, 209:5, 209:12, 209:13, 210:11, 213:21, 214:14, 215:1, 216:17, 216:21, 218:12, 219:4, 219:20, 219:22, 219:25, 221:13, 222:2, 222:19, 224:16, 226:10, 226:12, 227:25, 229:11, 229:13, 229:20, 231:11, 232:15, 233:23, 234:19, 236:5, 242:6, 243:11, 243:20, 243:25, 246:17, 248:21, 248:22, 248:25, 249:1, 249:4, 249:9, 249:10, 250:7, 250:10, 250:11, 251:7, 251:8, 251:14,

obviously [2] - 223:4, 300:14

252:15, 254:13, 255:17, 256:20, 258:19, 264:2, 265:22, 265:24, 266:4, 267:23, 267:24, 267:25, 268:13, 268:14, 272:20, 281:5, 281:9, 281:10, 285:17, 287:3, 287:5, 288:23, 293:15, 295:9, 295:22, 297:24, 299:2, 302:2, 303:1, 303:13, 303:16, 304:17, 305:5, 305:6, 306:15, 310:15 One [1] - 80:14 one-sided [1] - 251:7 ones [5] - 139:1, 139:4, 183:8, 224:8, 281:16 ongoing [1] - 281:24 onslaught [1] - 268:2 oOo [1] - 314:1 open [8] - 112:19, 113:8, 113:17, 220:7, 235:11, 245:20, 250:6, 282:20 open-ended [4] - 112:19, 113:8, 113:17, opened [2] - 182:13, 227:7 opening [13] - 178:1, 181:19, 219:14, 219:15, 220:1, 237:12, 239:11, 251:4, 254:9, 257:17, 265:18, 270:24, 271:3 operably [1] - 154:21 operate [1] - 168:25 operated [1] - 100:22 operates [1] - 116:11 operation [3] - 170:8, 171:19, 230:14 operations [4] - 293:14, 294:21, 296:9, 301:14 operatively [1] - 155:2 opine [1] - 220:12 opinion [8] - 92:3, 93:12, 133:3, 133:5, 193:23, 193:25, 275:1, 277:7 opinions [1] - 270:8 opportunity [4] - 245:21, 261:16, 266:16. 304:2 opposed [4] - 265:22, 301:4, 305:5, opposing [5] - 83:9, 128:1, 252:9, 270:8 opposite [8] - 143:15, 161:22, 162:2, 166:15, 166:22, 166:25, 251:5, 253:22 opposition [2] - 147:17, 258:12 optical [17] - 118:18, 120:1, 120:4, 153:25, 155:3, 155:6, 155:8, 155:16, 161:12, 162:5, 162:13, 167:18, 170:13, 173:19, 174:11, 221:14, 265:3 **OPTICS** [1] - 79:7 optics [2] - 171:3, 218:18 Optics [2] - 288:20, 296:7 optimistic [1] - 248:10 option [1] - 311:17 optional [4] - 285:7, 285:10, 285:18 options [1] - 133:7 OR [3] - 80:8, 80:16, 80:19 oral [1] - 81:4 orbital [2] - 146:7, 242:3 order [30] - 88:11, 93:16, 110:19, 112:20, 140:8, 141:7, 142:16, 144:24,

173:1, 191:12, 232:19, 232:20,

232:21, 238:14, 244:17, 246:13, 253:19, 253:22, 285:5, 290:17, 294:19, 294:22, 296:6, 296:16, 297:13, 297:21, 299:7, 303:19, 306:15, 307:2 Order [1] - 311:11 ordered [4] - 297:5, 310:3, 310:14, 311:17 ordering [8] - 299:15, 300:13, 300:15, 300:20, 310:12, 310:21, 311:16 orders [5] - 284:21, 290:10, 296:4, 300:5, 303:16 ordinary [9] - 91:23, 91:25, 92:11, 92:12, 93:21, 114:24, 194:9, 222:2, 265:6 OREGON [1] - 79:2 Oregon [3] - 79:6, 110:5, 314:13 original [20] - 103:11, 105:22, 124:3, 124:6, 159:5, 163:6, 166:4, 166:11, 172:5, 172:8, 187:18, 200:24, 203:1, 216:14, 228:15, 232:16, 232:19, 298:23, 314:6 oscillations [1] - 171:25 oscilloscope [1] - 170:2 oscilloscopes [1] - 175:4 otherwise [13] - 112:6, 112:11, 112:22, 158:2, 161:2, 165:4, 171:10, 211:11, 214:12, 231:16, 245:13, 286:23, 304:11 Otteman [69] - 96:10, 97:1, 97:23, 100:1, 100:10, 100:19, 102:22, 103:16, 104:25, 106:22, 108:4, 108:13, 108:15, 110:1, 111:9, 115:1, 116:25, 117:4, 118:3, 120:15, 120:17, 162:24, 163:3, 163:7, 175:14, 175:19, 176:17, 177:16, 178:5, 178:7, 178:13, 180:2, 180:16, 181:15, 181:23, 182:2, 182:11, 183:3, 183:10, 183:13, 183:17, 192:11, 192:18, 194:11, 195:5, 195:13, 195:16, 197:17, 221:11, 221:16, 239:15, 239:24, 240:7, 240:11, 240:21, 240:24, 241:2, 241:22, 245:25, 246:21, 247:16, 248:2, 251:10, 274:4, 275:12, 275:16, 279:14, 280:16 Otteman's [23] - 102:6, 102:14, 102:25, 104:13, 104:23, 105:10, 105:17, 109:9, 109:11, 109:14, 109:16, 110:3, 110:11, 178:12, 180:10, 181:13, 183:21, 195:3, 240:10, 241:3, 246:24, 249:23, 270:17 ought [3] - 292:24, 293:16, 298:19 ourselves [1] - 165:15 out-of-context [1] - 209:25 out-of-court [1] - 148:21 outcome [1] - 255:19 outlined [2] - 288:14, 299:22

outside [13] - 94:5, 94:15, 144:25,

205:19, 228:19, 233:20, 234:3,

234:11, 234:14, 234:20, 250:15,

268:21 outwardly [10] - 154:9, 228:18, 233:17, 233:22, 234:1, 234:2, 234:4, 234:7, 234:18, 269:14 over-the-shoulder [1] - 98:7 overall [4] - 97:25, 239:4, 239:7, 243:13 overclaimed [2] - 193:2, 193:3 overcome [2] - 92:3, 101:22 overlaying [1] - 152:5 overlooked [1] - 187:12 oversaw [1] - 178:14 overview [1] - 83:17 overwhelming [1] - 268:2 own [28] - 87:12, 136:3, 147:14, 157:20, 159:4, 159:8, 160:20, 162:22, 165:15, 177:7, 177:17, 200:13, 203:10, 215:25, 219:2, 220:13, 221:1, 224:11, 226:19, 226:25, 227:11, 238:24, 241:4, 279:10, 284:23, 285:4, 295:20, 304:21 owner [4] - 207:3, 289:11, 289:18, 289:19 owns [1] - 304:21 Ρ

packets [1] - 105:21 page [14] - 117:9, 122:1, 123:20, 124:16, 125:2, 139:20, 241:24, 246:24, 248:17, 277:1, 284:5, 286:16, 312:8, 312:9 pages [6] - 93:17, 120:11, 179:25, 219:20, 265:20, 286:22 paid [5] - 217:3, 217:9, 217:17, 300:14, 300:17 pair [2] - 250:16, 279:1 panel [1] - 187:22 Papak [1] - 110:6 paper [6] - 105:25, 106:1, 119:25, 299:1, 301:24, 302:4 paperwork [1] - 89:13 paragraph [8] - 135:7, 181:12, 194:15, 195:3, 237:11, 240:9, 262:14, 274:23 paragraphs [1] - 162:20 parallax [8] - 86:12, 146:2, 146:9, 152:6, 154:2, 174:19, 242:4, 268:13 parallels [1] - 190:7 PARK [29] - 81:9, 82:15, 83:2, 280:24, 281:18, 282:11, 283:3, 283:10, 283:13, 283:19, 283:23, 283:25, 284:4, 292:13, 302:8, 302:10, 306:8, 306:10, 306:25, 307:6, 307:11, 307:14, 308:5, 308:13, 308:19, 308:22, 308:25, 311:23, 313:2 Park [4] - 80:2, 81:10, 82:14, 284:7

Part [7] - 91:15, 92:16, 92:18, 92:22,

part [60] - 85:17, 85:22, 86:1, 86:4,

94:9, 94:25, 95:7, 95:11, 95:15,

87:13, 88:20, 88:25, 90:17, 92:9, 93:6,

93:9, 93:13, 94:3

```
100:16, 116:11, 142:10, 153:5, 153:9,
 153:19, 160:3, 176:19, 177:23,
 183:24, 195:14, 201:17, 220:4,
 220:16, 228:4, 228:5, 230:8, 234:3,
 234:22, 234:24, 235:17, 238:2, 238:5,
 240:8, 242:18, 242:22, 246:13,
 249:25, 250:25, 252:14, 262:18,
 268:22, 268:25, 269:23, 270:2,
 288:14, 288:15, 288:16, 290:8,
 290:25, 295:19, 295:22, 297:17,
 297:21
partial [1] - 114:20
particular [15] - 85:6, 105:8, 154:4,
 177:12, 191:17, 212:24, 238:25,
 239:10, 248:4, 253:16, 269:18, 302:5,
 305:12, 305:23, 310:25
particularly [6] - 110:2, 128:9, 173:4,
 244:19, 245:20, 257:17
parties [28] - 84:1, 88:7, 96:9, 99:4,
 99:9, 120:23, 126:2, 127:13, 135:11,
 136:7, 137:24, 140:25, 158:2, 204:24,
 206:9, 213:21, 215:7, 225:25, 230:1,
 278:4, 282:13, 285:9, 292:18, 296:24,
 299:14, 305:14, 305:15, 307:21
parties' [1] - 81:4
parts [50] - 87:8, 88:23, 100:15, 100:17,
 100:19, 104:11, 104:24, 105:6, 108:5,
 118:18, 131:17, 159:13, 161:11,
 161:12, 169:12, 169:16, 170:11,
 170:25, 174:9, 175:14, 175:19, 178:3,
 178:5, 180:2, 180:21, 181:1, 181:23,
 182:1, 182:3, 182:9, 183:4, 183:7,
 221:8, 222:9, 235:10, 235:20, 236:5,
 240:11, 240:15, 240:19, 240:22,
 241:20, 242:5, 243:14, 243:15, 271:19
party [15] - 99:10, 99:13, 100:13, 104:9,
 104:12, 105:15, 128:22, 131:24,
 132:3, 156:5, 159:13, 202:4, 214:15,
 288:12, 295:7
pass [3] - 121:1, 121:3, 292:9
passed [1] - 293:5
past [4] - 121:1, 205:23, 205:25, 208:16
patent [299] - 82:19, 83:15, 84:4, 86:19,
 87:3, 87:20, 88:13, 91:8, 92:11, 92:15,
 92:20, 95:7, 99:14, 111:14, 111:15,
 111:16, 111:21, 111:22, 113:2, 113:7,
 113:13, 113:16, 115:19, 117:12,
 117:13, 117:15, 121:2, 121:6, 121:7,
 121:14, 121:22, 121:24, 122:1, 122:2,
 122:5, 122:9, 122:11, 122:13, 122:17,
 122:18, 122:19, 122:24, 123:9,
 123:16, 123:17, 123:19, 123:22,
 124:17, 125:2, 125:5, 125:9, 125:12,
 125:15, 125:17, 125:18, 125:22,
 126:6, 126:9, 126:14, 127:16, 127:22,
 130:2, 130:3, 132:1, 132:4, 132:9,
 132:22, 133:2, 133:9, 133:10, 133:13,
 134:20, 135:2, 136:9, 139:19, 139:20,
 139:24, 140:1, 140:4, 140:5, 140:13,
 140:14, 140:22, 141:11, 141:12,
```

```
142:21, 143:24, 144:3, 144:18,
                                            patents [20] - 82:24, 119:24, 133:15,
 144:23, 145:3, 150:12, 151:5, 151:18,
                                              162:8, 203:6, 209:12, 209:14, 219:11,
 152:4, 152:5, 152:6, 152:16, 153:15,
                                              221:17, 261:15, 261:20, 281:6, 281:8,
 155:12, 156:2, 156:4, 156:6, 157:9,
                                              281:19, 281:20, 282:6, 289:25, 291:2,
 157:10, 157:13, 157:20, 157:22,
 158:20, 159:3, 159:4, 159:6, 159:8,
                                            patents-in-suit [3] - 289:25, 291:2,
 160:6, 163:13, 163:18, 163:24, 164:1,
                                              303:1
 165:10, 170:6, 170:14, 174:14, 177:8,
                                            path [1] - 133:6
 177:9, 177:21, 179:4, 179:7, 179:9,
                                            pattern [1] - 207:15
 179:14, 179:23, 180:4, 180:5, 180:20,
                                            patterns [1] - 309:22
 180:24, 183:20, 185:2, 185:6, 185:14,
                                            pause [5] - 82:8, 150:9, 151:11, 265:17,
 185:15, 186:1, 186:9, 186:16, 187:21,
                                              274:16
 188:25, 189:6, 190:21, 191:1, 192:18,
                                            Pause [1] - 274:9
 192:19, 193:7, 194:12, 194:23,
                                            pay [4] - 151:3, 216:19, 216:22
 195:17, 196:1, 197:10, 197:19, 199:4,
                                            Payne [2] - 169:23, 175:1
 200:5, 200:15, 200:17, 201:3, 201:18,
                                            penalty [3] - 259:1, 259:3
 203:7, 203:9, 203:11, 203:21, 203:25,
                                            penile [1] - 169:18
 204:5, 204:23, 204:25, 205:2, 206:2,
                                            Pentagon [1] - 289:10
 206:13. 206:15. 206:16. 206:18.
                                            people [6] - 81:17, 221:7, 221:20,
 206:19, 206:21, 206:22, 207:10,
                                              226:21, 264:20, 297:16
 207:14, 207:19, 207:21, 207:24,
                                            per [1] - 294:15
 208:21, 208:22, 209:10, 209:21,
                                            percent [2] - 212:13, 236:9
 211:8, 212:14, 212:18, 215:3, 215:5,
                                            perception [1] - 213:20
 215:8, 215:11, 215:14, 215:24,
                                            perfectly [3] - 124:10, 235:21, 298:3
 217:15, 218:8, 218:9, 218:12, 218:18,
                                            perforating [1] - 169:21
 218:20, 218:21, 219:17, 221:12,
                                            perhaps [2] - 166:3, 247:7
 221:19, 222:25, 223:16, 225:17,
                                            period [15] - 159:9, 179:22, 180:15,
 225:21, 225:24, 227:11, 227:15,
                                              200:1, 202:1, 202:2, 204:3, 207:6,
 227:18, 232:9, 236:1, 241:19, 242:19,
                                              217:5, 227:9, 227:13, 264:22, 271:5,
 249:23, 250:5, 250:10, 250:22,
                                              271:6, 283:17
 251:11, 255:2, 255:3, 255:8, 255:14,
                                            periods [1] - 259:9
 255:23, 255:24, 256:3, 257:13, 258:9,
                                            permitted [1] - 250:4
 258:11, 258:14, 259:16, 259:21,
                                            permutations [1] - 196:16
 259:24, 260:8, 260:13, 261:6, 262:7,
                                            person [53] - 90:21, 90:24, 107:6,
 263:8, 272:6, 272:15, 273:6, 278:5,
                                              114:24, 115:23, 116:10, 116:22,
 280:2, 281:9, 281:14, 284:13, 286:3,
                                              116:24, 118:2, 118:7, 118:16, 119:1,
 287:14, 287:22, 287:23, 288:3, 288:6,
                                              119:2, 119:4, 119:6, 120:14, 120:16,
 288:13, 288:24, 289:10, 289:11,
                                              143:3, 143:8, 143:10, 143:19, 144:9,
 289:12, 289:15, 289:17, 289:18,
                                              175:13, 194:9, 194:21, 195:12,
 289:19, 290:22, 291:7, 291:8, 291:10,
                                              196:15, 196:20, 197:2, 197:13,
 293:7, 293:9, 293:17, 294:11, 296:17,
                                              202:20, 209:23, 226:17, 251:9,
 297:7, 297:23, 298:10, 298:15, 299:5,
                                              251:18, 251:19, 252:1, 252:3, 252:10,
 299:6, 299:12, 302:16, 302:19, 304:7,
                                              252:22, 252:25, 253:13, 266:10,
 304:20, 304:21, 310:1, 310:17,
                                              273:18, 275:2, 275:7, 275:10, 275:15,
 310:19, 310:24
                                              276:8, 277:11, 277:19, 279:13
Patent [18] - 123:25, 124:2, 124:6,
                                            personal [9] - 119:13, 119:18, 119:21,
 124:19, 124:25, 193:14, 215:22,
                                              148:24, 252:20, 252:22, 252:23,
 216:10, 216:17, 216:18, 216:19,
                                              302:3, 302:4
 216:22, 217:2, 217:16, 255:10, 257:6,
                                            personnel [1] - 84:22
 288:6
                                            perspective [6] - 84:14, 218:10, 251:18,
patent's [1] - 138:14
                                              295:11, 313:1, 313:4
patent-infringing [1] - 288:24
                                            persuade [2] - 99:19, 239:17
patented [6] - 145:11, 286:2, 288:10,
                                            pertinent [2] - 121:17, 188:2
 290:3, 305:9
                                            PFDs [1] - 119:20
patentee [11] - 113:15, 113:24, 114:16,
                                            Pharmaceuticals [1] - 195:20
 124:5, 124:8, 250:8, 251:20, 257:3,
                                            photograph [2] - 228:1, 230:7
 259:2, 259:10, 302:18
                                            photographs [7] - 138:7, 211:19, 212:1,
patentee's [5] - 254:23, 254:24, 257:5,
                                              226:12, 226:13, 226:15, 227:3
 257:16, 259:6
                                            photos [16] - 136:23, 136:25, 137:2,
patentees [1] - 288:24
                                              138:15, 144:20, 145:17, 146:24,
```

plaintiff's [2] - 135:23, 313:1

147:1, 147:4, 147:5, 147:8, 147:16, 147:20, 148:3, 266:20 phrase [6] - 141:4, 142:3, 142:5, 142:10, 142:12, 142:13 physical [1] - 179:25 physically [1] - 116:17 pick [1] - 144:10 picks [2] - 124:21, 128:4 picture [10] - 85:20, 87:6, 103:2, 103:5, 136:20, 147:14, 158:9, 218:16, 238:2, pictured [1] - 228:1 pictures [8] - 94:23, 136:21, 147:4, 147:24, 148:1, 159:18, 182:25, 224:5 piece [14] - 107:18, 107:22, 152:8, 152:10, 154:1, 155:1, 155:4, 155:7, 195:22, 195:25, 221:3, 231:20, 298:9, 299:1 pieces [12] - 155:11, 155:14, 162:13, 167:19, 181:3, 182:4, 182:6, 185:22, 195:2, 211:21, 229:17, 236:23 pile [2] - 133:18, 298:21 **pin** [91] - 83:18, 84:9, 85:1, 85:7, 85:13, 85:18, 85:23, 86:1, 86:9, 86:21, 86:22, 87:6, 87:9, 87:11, 87:13, 87:16, 87:21, 87:25, 88:4, 88:5, 88:12, 88:14, 88:20, 88:22, 88:25, 89:1, 89:20, 95:5, 95:11, 95:14, 96:1, 108:6, 112:9, 112:14, 112:22, 114:14, 114:15, 146:7, 185:18, 189:3, 189:5, 189:13, 198:2, 198:13, 199:3, 228:1, 229:24, 230:1, 230:2, 230:5, 230:15, 230:16, 230:17, 230:23, 230:25, 231:1, 231:2, 231:5, 231:7, 231:15, 231:16, 231:17, 231:18, 231:21, 232:2, 232:6, 235:12, 235:13, 235:14, 236:4, 236:5, 236:7, 236:12, 236:13, 236:20, 236:23, 237:5, 237:6, 237:13, 237:16, 237:19, 238:6, 242:3, 250:22, 250:23, 250:25 pinch [1] - 281:20 ping [1] - 82:18 ping-ponging [1] - 82:18 pinpoint [1] - 264:14 pins [1] - 82:6 pipe [1] - 169:21 pivoting [1] - 298:12 place [17] - 85:17, 85:24, 99:16, 101:13, 106:19, 165:3, 187:20, 187:25, 245:8, 256:10, 256:11, 256:13, 260:7, 260:24, 261:5, 286:4, 296:22 placed [4] - 123:18, 188:19, 220:15, places [2] - 89:13, 107:11 plain [5] - 91:23, 91:25, 92:12, 93:21, 192.8 plainly [3] - 265:7, 287:1, 287:2 Plaintiff [1] - 79:4 plaintiff [7] - 81:10, 81:23, 122:14, 122:15, 191:5, 284:8, 309:5 **PLAINTIFF**[1] - 80:2

plan [1] - 84:21 plane [4] - 228:21, 233:2, 233:20, 234:20 plaster [1] - 108:1 plastic [1] - 100:17 platform [1] - 246:1 play [5] - 107:19, 107:23, 107:24, 108:2, 174:9 plenty [2] - 214:19, 219:3 plugs [2] - 169:24, 175:5 plus [3] - 97:18, 99:2, 214:11 point [84] - 87:17, 89:3, 93:11, 103:19, 105:5, 108:1, 110:13, 114:2, 118:6, 123:15, 124:4, 128:6, 129:6, 135:9, 135:20, 139:16, 142:8, 143:16, 143:17, 143:21, 144:2, 146:16, 148:6, 151:4, 156:9, 156:10, 157:15, 158:10, 161:7, 162:7, 163:21, 165:19, 171:9, 173:8, 181:11, 182:24, 193:21, 194:14, 200:12, 200:17, 200:18, 200:23, 201:22, 208:4, 211:12, 212:12, 215:5, 220:5, 220:19, 222:14, 228:3, 229:18, 231:1, 233:9, 243:10, 243:12, 243:13, 246:2, 255:13, 255:17, 263:14, 267:11, 267:18, 268:9, 271:15, 272:21, 288:11, 288:23, 294:12, 295:21, 297:14, 297:20, 298:23, 300:6, 301:10, 301:12, 305:6, 311:24, 311:25, 312:2, 312:8 pointed [6] - 121:21, 193:8, 207:23, 208:2, 209:22, 271:16 pointing [6] - 198:24, 201:11, 206:4, 237:6, 237:15, 245:1 points [14] - 114:3, 133:12, 133:15, 162:17, 178:2, 210:6, 212:2, 237:12, 237:14, 244:16, 264:13, 267:15, 270:8, 272:25 policy [1] - 125:4 pollute [1] - 270:17 ponging [1] - 82:18 poorly [1] - 229:6 pop [1] - 242:13 portion [8] - 152:19, 152:20, 217:24, 233:21, 258:4, 270:1, 274:23, 274:25 Portland [4] - 79:6, 80:8, 80:16, 80:19 posed [2] - 191:5, 228:8 position [54] - 91:20, 92:21, 96:10, 103:19, 112:18, 113:6, 113:11, 125:7, 125:24, 130:11, 134:16, 138:23, 141:8, 142:23, 160:24, 161:22, 163:5, 163:23, 164:14, 164:17, 164:20, 164:23, 165:14, 167:5, 171:9, 171:12, 174:8, 187:19, 188:14, 195:4, 205:4, 205:20, 207:11, 207:19, 207:22, 209:1, 215:20, 218:7, 218:25, 223:8, 228:12, 230:1, 231:10, 232:8, 237:7, 239:23, 246:20, 257:3, 270:11,

271:12, 279:17, 294:24, 296:20, 309:1

positioned [5] - 190:9, 269:7, 269:12, 269:15, 269:21 positions [2] - 246:18, 268:19 positive [1] - 214:25 possessed [8] - 115:1, 116:25, 118:3, 120:15, 120:17, 251:20, 274:4, 279:14 possession [5] - 194:11, 194:24, 275:13, 275:16, 276:9 possibilities [1] - 116:12 possible [15] - 96:21, 112:21, 113:9, 113:15, 128:15, 128:24, 128:25, 196:19, 197:23, 198:8, 235:6, 238:15, 250:14, 297:22, 307:11 possibly [6] - 86:18, 199:9, 250:9, 250:25, 268:3, 296:8 post [3] - 87:23, 87:25, 88:5 postdates [1] - 185:11 posts [1] - 264:10 potential [3] - 129:4, 174:17, 174:20 potentially [3] - 125:18, 171:24, 174:15 practice [33] - 97:24, 98:11, 99:4, 102:12, 105:11, 156:17, 156:24, 157:5, 158:16, 158:17, 158:23, 159:11, 159:20, 159:23, 164:4, 164:9, 168:11, 175:10, 176:2, 176:18, 178:10, 179:1, 179:11, 179:17, 181:4, 183:15, 184:2, 239:1, 239:5, 247:6, 270:12, 271:4, 280:9 practicing [1] - 127:16 prayer [1] - 281:16 preamble [12] - 140:18, 140:20, 141:2, 141:4, 141:5, 141:6, 141:16, 142:4, 142:6, 142:10, 142:14, 219:7 preambles [4] - 140:23, 219:10, 219:11 prec [1] - 114:1 preceded [1] - 118:22 precedent [2] - 113:24, 216:9 precedential [1] - 113:23 precedes [1] - 110:3 preceding [1] - 196:7 precisely [1] - 266:1 precision [2] - 162:5, 171:3 preclude [4] - 96:2, 118:9, 136:3, 263:10 precludes [1] - 236:3 predate [1] - 223:12 predates [3] - 156:2, 156:3, 218:11 predating [2] - 157:21, 227:5 predecessor[1] - 293:23 predicate [2] - 305:22, 312:7 predictable [3] - 116:8, 170:9, 241:12 preference [1] - 282:2 preferred [1] - 195:8 prejudice [22] - 126:22, 126:23, 127:8, 127:10, 165:7, 165:9, 204:13, 204:14, 245:11, 245:12, 245:15, 245:16, 245:19, 261:24, 262:2, 263:3, 263:5, 263:12, 263:17, 263:22, 263:23 prepared [3] - 130:12, 178:19, 223:18 presence [1] - 235:9

present [4] - 109:12, 150:23, 269:9, 311.5 PRESENT [1] - 80:17 presentation [11] - 95:23, 150:5, 150:16, 155:24, 156:20, 204:17, 214:21, 232:25, 237:18, 251:4, 303:14 presentations [1] - 298:8 presented [4] - 84:18, 229:19, 232:19, 249:8 presenting [2] - 150:18, 150:22 presently [1] - 301:19 preserved [3] - 102:8, 247:8, 280:17 pressure [3] - 162:2, 169:25, 171:16 pressures [1] - 175:3 presumably [2] - 178:20, 234:22 presume [1] - 209:13 presumption [4] - 193:13, 258:2, 258:3, 258:5 pretty [3] - 101:17, 186:8, 281:14 prevail [2] - 126:21, 144:24 prevailed [1] - 262:19 prevailing [2] - 262:20, 262:25 prevails [1] - 177:7 prevent [2] - 169:14, 293:7 previewed [1] - 181:12 previous [1] - 190:3 previously [1] - 153:15 primary [12] - 221:4, 222:6, 299:20, 303:25, 306:2, 306:5, 306:6, 306:13, 306:23, 307:4, 307:5, 307:10 prime [30] - 290:10, 290:15, 290:17, 290:18, 290:21, 295:9, 295:13, 299:25, 300:3, 300:11, 300:13, 300:14, 300:18, 301:4, 303:9, 306:12, 306:14, 307:16, 307:18, 308:1, 308:3, 308:6, 308:25, 309:9, 309:10, 309:12, 311:5. 311:8. 312:16 principle [4] - 186:8, 186:13, 187:4, 305:18 principles [1] - 196:6 printed [1] - 146:12 prioritize [1] - 281:13 priority [83] - 83:23, 90:18, 96:18, 111:13, 111:15, 111:22, 112:1, 112:20, 114:21, 121:24, 121:25, 122:10, 122:16, 123:9, 123:12, 123:16, 124:16, 124:25, 125:11, 145:4, 150:20, 157:12, 158:5, 184:14, 185:14, 186:11, 188:23, 193:15, 195:18, 199:6, 200:23, 201:12, 201:20, 201:23, 203:13, 203:14, 203:18, 204:1, 204:21, 204:22, 205:3, 205:7, 205:21, 206:3, 206:5, 207:18, 208:16, 211:23, 213:18, 215:4, 215:8, 215:15, 215:16, 215:23, 216:4, 216:11, 217:1, 217:11, 223:11, 231:24, 249:17, 251:7, 254:6, 254:14, 255:1, 255:6, 255:14, 255:22, 256:2, 256:9, 256:10, 256:24, 260:6, 260:8, 260:14, 260:24, 273:1, 274:21, 275:2,

278:2, 278:3, 278:4, 278:18 Prism [3] - 124:14, 255:21, 256:14 private [4] - 288:12, 289:23, 296:1, probative [12] - 156:9, 158:17, 160:10, 177:6, 177:13, 177:22, 178:8, 178:9, 181:2, 182:22, 183:14, 183:16 **problem** [19] - 161:21, 161:24, 171:13, 173:11, 189:21, 190:11, 191:13, 191:17, 213:23, 216:3, 216:15, 235:10, 257:22, 259:7, 260:10, 270:13, 270:15, 277:21, 296:18 problematic [2] - 110:2, 160:9 problems [4] - 156:23, 213:21, 216:3, 258:18 procedure [2] - 302:11, 302:20 procedures [3] - 285:8, 294:13, 302:13 proceed [4] - 82:11, 82:12, 137:14, 184:23 proceeded [1] - 262:24 proceeding [1] - 264:1 proceedings [6] - 82:8, 150:9, 151:11, 274:16, 313:11, 314:5 **PROCEEDINGS** [1] - 79:17 process [4] - 103:14, 176:9, 191:16, 281:1 processes [2] - 156:11, 156:13 produced [4] - 103:2, 103:4, 104:11, product [54] - 87:18, 94:20, 109:12, 133:2, 137:2, 142:20, 145:6, 148:11, 148:12, 149:20, 153:9, 159:18, 162:18, 167:9, 172:18, 200:3, 200:10, 200:13, 202:23, 206:21, 207:5, 212:21, 214:3, 221:14, 223:15, 223:19, 223:25, 224:1, 226:20, 227:6. 227:7, 229:5, 229:16, 234:17, 235:7, 235:14, 235:20, 243:5, 262:17, 264:7, 268:23, 280:15, 290:7, 290:19, 293:15, 293:20, 296:23, 297:5, 298:10, 298:15, 299:7, 306:12, 310:14 production [7] - 99:14, 100:15, 156:7, 159:2, 193:10, 270:22, 274:1 products [54] - 84:15, 84:25, 85:2, 85:5, 86:16, 86:24, 87:1, 89:24, 91:10, 91:12, 119:12, 119:18, 119:24, 131:8, 132:12, 132:15, 132:16, 132:19, 132:20, 134:1, 136:15, 176:18, 199:25, 200:18, 201:3, 204:9, 206:15, 206:16, 221:15, 221:21, 221:23, 222:21, 223:22, 224:12, 224:19, 224:20, 226:7, 227:18, 228:12, 228:20, 252:19, 258:15, 262:11, 263:2, 263:4, 269:24, 288:10, 289:22, 293:14, 294:24, 295:1, 298:7, 310:12 Products [1] - 110:6 profits [1] - 310:6 progress [1] - 283:14 project [9] - 106:10, 106:15, 106:17, 179:18, 180:8, 180:13, 180:18,

projectile [1] - 174:21 projecting [4] - 154:9, 234:1, 234:2, 234:7 projection [1] - 236:20 projector [2] - 284:1, 284:24 projects [5] - 106:7, 106:17, 180:11, 180:13, 234:3 prompted [1] - 88:19 prompting [1] - 87:12 prone [1] - 244:10 prong [6] - 128:13, 287:7, 287:18, 290:7. 290:25. 291:6 prongs [1] - 161:15 proof [6] - 98:22, 99:7, 167:1, 177:14, 251:9. 270:15 proper [9] - 84:9, 84:10, 93:12, 96:5, 101:10, 109:10, 128:20, 201:23, 203:13 properly [4] - 96:4, 121:8, 245:4, 246:1 prosecuted [1] - 111:21 protected [2] - 293:13, 295:14 protection [2] - 295:17, 299:18 prototype [69] - 98:23, 99:1, 99:2, 100:15, 100:17, 100:18, 100:21, 104:18, 107:7, 107:8, 107:17, 108:12, 108:16, 108:22, 156:17, 159:14, 159:24, 160:1, 160:11, 160:18, 163:1, 163:14, 164:10, 169:25, 172:22, 172:23, 173:3, 175:15, 175:18, 176:25, 177:5, 177:11, 178:3, 178:15, 181:5, 181:22, 182:3, 182:8, 182:23, 183:8, 183:11, 183:16, 183:24, 184:2, 184:8, 239:25, 240:7, 240:23, 241:23, 242:13, 242:18, 242:19, 242:23, 243:15, 243:16, 244:6, 246:25, 271:4, 271:17, 271:19, 271:20, 271:21, 271:22, 280:10, 280:11 prototypes [3] - 104:13, 172:23, 247:12 prototyping [6] - 166:9, 166:11, 173:1, 176:20, 181:25, 182:1 protruding [2] - 88:10, 88:11 prove [17] - 97:12, 99:1, 99:11, 99:21, 110:19, 126:12, 127:1, 140:8, 145:8, 146:8, 148:15, 149:15, 149:25, 156:6, 167:1, 245:5, 286:19 proved [1] - 98:13 proven [2] - 183:19, 239:6 provide [7] - 141:5, 141:14, 147:21, 156:8, 161:6, 311:18, 312:16 provided [20] - 101:1, 110:14, 136:11, 160:17, 170:15, 175:8, 175:17, 177:11, 177:12, 177:19, 177:23, $178{:}21,\,179{:}2,\,181{:}23,\,183{:}3,\,190{:}23,$ 219:23, 259:3, 273:10, 303:6 provides [6] - 141:2, 141:25, 142:5, 167:7, 193:22, 232:5 providing [3] - 161:17, 165:12, 197:9 proving [1] - 312:1 provision [9] - 284:16, 285:14, 302:13,

180:22, 228:17

303:23, 304:10, 304:11, 309:10, 311:3 provisional [65] - 83:23, 90:20, 90:23, 96:19, 111:15, 111:17, 111:19, 111:20, 111:22, 112:11, 112:20, 113:2, 113:5, 113:7, 113:13, 114:21, 114:25, 115:13, 115:17, 116:5, 117:1, 117:6, 117:22, 118:2, 121:25, 125:19, 138:20, 150:20, 156:4, 157:10, 157:13, 185:7, 185:15, 185:16, 185:23, 187:9, 187:15, 187:18, 189:1, 191:6, 195:8, 200:7, 200:8, 200:9, 200:11, 200:14, 203:12, 218:13, 223:2, 227:14, 232:5, 232:7, 249:16, 249:21, 250:11, 250:23, 250:24, 251:7, 251:15, 253:10, 254:6, 256:13, 260.14 $\textbf{provisions} \, [4] \, \textbf{--} \, 303:8, \, 303:9, \, 311:13, \,$ 312:14 PTO [3] - 124:22, 255:24, 256:22 PTO's [2] - 256:23, 257:4 **public** [6] - 197:20, 206:1, 206:17, 213:20, 217:16, 255:13 publication [30] - 146:12, 155:25, 157:19, 157:24, 158:3, 158:7, 159:16, 159:21, 159:25, 160:19, 164:2, 176:3, 176:25, 177:6, 178:11, 184:3, 184:4, 185:4, 185:11, 185:24, 199:10, 199:11, 199:21, 201:11, 211:22, 223:4, 223:13, 270:20, 271:2, 271:23 publicly [5] - 145:1, 146:22, 148:12, 149:15, 149:21 publish [1] - 157:24 published [2] - 157:21, 227:13 pull [4] - 232:15, 233:12, 237:10, 239:22 **pulling** [1] - 155:8 pump [1] - 169:18 Purchase [1] - 311:11 purchase [6] - 285:5, 290:10, 290:17, 294:13, 297:12, 299:25 purchased [1] - 306:3 purchaser [5] - 299:21, 300:8, 301:1, 302:6, 312:20 purchases [1] - 298:19 purely [2] - 166:8, 216:12 purged [1] - 105:21 purple [7] - 152:7, 152:20, 153:10, 153:14, 153:21, 154:3, 155:4 purported [2] - 118:23 purportedly [10] - 136:17, 138:8, 147:6, 149:2, 254:13, 259:23, 260:23, 263:4, 263:13. 266:6 purpose [23] - 108:16, 123:17, 124:11, 156:18, 160:1, 160:12, 160:14, 160:18, 161:1, 163:14, 163:20, 164:11, 175:24, 176:23, 177:3, 177:10, 184:7, 212:25, 224:18, 242:24, 243:16, 271:6, 275:24 purposes [12] - 104:6, 156:21, 186:3, 227:3, 271:18, 275:25, 276:19,

277:10, 283:14, 294:21, 295:12,

308:15 pursuant [3] - 292:20, 294:6, 296:13 pushes [3] - 86:9, 86:10, 86:11 put [44] - 87:6, 87:13, 92:8, 101:6, 101:25, 107:21, 108:4, 111:23, 119:9, 122:16, 122:23, 122:24, 123:8, 135:8, 178:7, 180:5, 182:4, 187:25, 206:3, 207:11, 214:2, 216:4, 217:1, 217:10, 233:5, 239:24, 240:24, 243:6, 243:8, 245:4, 245:8, 246:5, 248:20, 250:13, 250:14, 255:1, 260:23, 270:21, 283:25, 289:18, 302:2, 304:16, 312:3 puts [6] - 231:21, 256:2, 256:9, 256:11, 256:13, 260:6 putting [10] - 151:1, 188:7, 227:10, 243:1, 243:7, 244:8, 244:10, 254:13,

255:6, 255:22

puzzled [1] - 90:6

Q qualified [4] - 222:7, 222:8, 252:20, 265:16 qualifies [2] - 109:8, 218:13 qualify [1] - 230:3 quantities [2] - 294:14, 294:20 questionable [1] - 125:9 questioned [3] - 163:18, 192:10, 192:19 questioner [3] - 133:12, 133:15, 133:16 questioning [1] - 248:23 questions [26] - 95:22, 109:22, 143:6, 155:18, 176:22, 177:1, 184:14, 184:15, 191:4, 199:14, 209:19, 211:18, 214:22, 217:24, 222:20, 224:4, 224:21, 227:20, 246:18, 248:8, 248:9, 261:13, 278:7, 292:8, 292:9, 306:9 queued [1] - 281:5 quick [2] - 267:22, 272:21 quickly [8] - 101:17, 111:23, 201:8, 237:9, 268:6, 268:16, 271:24, 272:25 quite [11] - 106:14, 106:16, 112:1, 118:16, 129:15, 138:5, 147:24, 185:21, 187:8, 225:15, 301:23 quote [9] - 113:24, 119:19, 161:23, 194:16, 209:6, 251:14, 276:24, 286:18, 286:20 quoted [3] - 186:14, 187:1, 187:3

R

quotes [4] - 172:6, 240:5, 270:12,

270:20

quoting [1] - 92:9

rabbit [1] - 240:3
Racing [1] - 288:20
radius [2] - 86:5, 86:7
rail [46] - 90:20, 115:1, 116:25, 117:4,
117:9, 117:11, 117:16, 117:18,
117:23, 117:25, 118:3, 169:18,

189:16, 190:4, 190:22, 191:23, 192:1, 192:4, 192:9, 192:21, 192:25, 194:17, 194:18, 194:19, 194:20, 194:25, 195:10, 195:14, 195:23, 197:3, 198:4, 273:5, 273:15, 274:4, 275:4, 275:5, 275:6, 275:17, 275:22, 276:21, 276:24, 277:3, 277:8, 278:20, 279:15 rail/fork [2] - 117:20, 120:17 rails [1] - 279:22 raise [4] - 210:9, 225:13, 270:24, 270:25 raised [9] - 121:12, 122:19, 163:21, 164:6, 175:23, 197:12, 219:18, 256:8, raises [4] - 120:25, 211:17, 272:21, 303:7 ramifications [1] - 88:20 ramp [1] - 224:1 ramp-up [1] - 224:1 range [3] - 136:17, 146:17, 264:21 Range [8] - 267:2, 267:4, 267:5, 267:7, 267:18, 268:10, 268:14 ranges [1] - 267:20 rare [1] - 167:21 rasies [1] - 231:14 rather [5] - 161:17, 221:10, 251:17, 254:14, 305:24 rational [12] - 99:15, 99:17, 99:24, 100:4, 102:1, 105:15, 145:10, 148:14, 202:20, 203:2, 211:3, 239:15 rationale [2] - 143:12, 144:13 rationales [1] - 214:14 Ray [6] - 132:6, 202:4, 207:2, 211:12, 262:5, 262:9 re [3] - 169:9, 169:13, 242:12 re-jiggering [1] - 242:12 reach [8] - 82:11, 95:2, 125:23, 195:12, 197:13, 248:12, 252:7, 266:21 reached [3] - 137:16, 195:5, 289:11 read [12] - 117:25, 149:11, 167:6, 192:3, 196:15, 209:15, 231:2, 248:7, 248:23, 249:14, 277:12, 300:23 readily [2] - 115:23, 275:7 reading [9] - 90:12, 194:10, 197:14, 231:20, 240:6, 273:19, 275:10, 276:8, 277:18 reads [1] - 105:10 ready [1] - 254:1 real [13] - 103:21, 138:20, 159:17, 169:22, 169:24, 211:14, 241:12, 241:13, 243:24, 244:1, 260:10, 276:12, 277:24 reality [2] - 300:21, 300:22 realizes [1] - 87:17 really [40] - 83:12, 86:6, 86:8, 94:2, 94:4, 95:14, 106:19, 136:18, 138:18, 140:17, 143:24, 144:1, 148:24, 169:15, 172:25, 193:20, 195:15, 197:15, 211:19, 224:25, 241:18, 245:24, 246:4, 246:6, 247:23, 252:10,

252:11, 255:14, 257:4, 260:13, 263:7,

263:20, 289:9, 295:20, 299:22, 299:24, 301:1, 307:12, 309:21 realtime [1] - 82:1 reason [33] - 96:11, 97:7, 97:9, 97:10, 117:9. 122:12. 130:5. 133:22. 157:2. 160:17, 170:21, 179:21, 181:17, 185:2, 185:9, 188:10, 225:9, 238:22, 238:23, 239:4, 240:18, 240:19, 241:16, 242:23, 247:23, 258:15, 266:12, 275:10, 276:22, 280:9, 280:19, 286:4, 294:8 reasonable [11] - 97:19, 143:3, 208:12, 208:13, 211:3, 211:10, 227:17, 231:5, 231:6, 239:8, 292:22 reasonably [1] - 227:16 reasoning [4] - 140:5, 257:21, 258:7, reasons [10] - 137:5, 143:18, 167:12, 175:21, 193:2, 197:13, 259:17, 259:18, 292:4, 305:6 rebut [1] - 247:14 rebuttal [6] - 108:9, 150:4, 163:10, 164:4, 232:12, 292:11 recalled [4] - 106:6, 180:22, 182:2, 192:13 recant [1] - 247:16 recanted [6] - 158:21, 177:18, 178:1, 178:22, 181:21, 183:18 recanting [1] - 184:11 recants [1] - 247:15 received [7] - 134:6, 134:13, 134:21, 159:4, 200:5, 210:11, 296:16 recent [1] - 291:20 recess [5] - 137:7, 137:11, 184:21, 254:4, 313:8 recessed [7] - 90:1, 189:18, 190:23, 191:11, 197:12, 273:17 recharge [1] - 253:25 recite [5] - 189:10, 190:13, 198:7, 198:12, 219:6 recites [3] - 188:15, 190:15, 274:24 recognize [5] - 196:16, 248:24, 275:3, 275:7, 279:14 recognized [3] - 98:12, 195:6, 277:8 recognizing [3] - 87:12, 160:21, 275:18 recoil [9] - 162:1, 171:16, 173:22, 174:2, 174:3, 174:5, 174:12, 174:15, 245:24 recollection [8] - 148:2, 149:2, 149:3, 178:25, 179:15, 183:11, 183:21, 240.10 recommending [1] - 281:10 record [49] - 81:8, 82:4, 103:3, 103:16, 104:3, 110:15, 111:23, 120:16, 120:20, 130:9, 130:19, 143:8, 146:5, 149:4, 149:5, 163:12, 167:11, 178:14, 201:19, 223:22, 227:19, 229:19, 248:24, 258:19, 260:4, 261:21, 262:5, 263:14, 266:25, 268:18, 269:2, 270:4, 270:9, 274:10, 282:25, 284:7, 291:10, 292:18, 298:20, 301:10, 301:19,

302:2, 304:19, 305:7, 312:3, 312:7, 210:22, 211:5, 223:14, 227:5, 227:9, 312:11, 312:12, 314:4 253:1, 258:17, 258:20, 258:24, 259:1, records [12] - 104:16, 105:19, 105:22, 271:5, 271:6, 295:20 105:24, 106:1, 149:3, 177:19, 177:21, relevantly [1] - 157:18 181:21, 214:6, 214:9 reliance [21] - 126:22, 127:1, 127:7, red [2] - 85:7, 140:15 127:9, 127:10, 132:16, 139:16, 148:4, redo [1] - 246:15 204:12, 204:16, 207:1, 209:1, 209:21, 209:24, 261:23, 262:1, 262:3, 263:5, reduce [1] - 108:2 263:18, 263:23 reduced [1] - 100:25 relied [12] - 101:3, 121:18, 121:19, reducing [1] - 97:24 131:7, 131:20, 164:4, 177:24, 180:17, reduction [29] - 98:11, 102:12, 105:11, 187:15, 204:8, 214:16, 258:23 156:16, 156:24, 157:5, 158:16, 158:17, 158:23, 159:10, 159:20, relies [4] - 118:14, 148:17, 197:8, 288:17 159:23, 164:4, 164:9, 168:10, 176:2, rely [11] - 126:24, 130:14, 130:19, 178:10, 179:1, 179:10, 179:16, 181:4, 183:14, 184:1, 239:1, 239:5, 247:6, 143:2, 145:15, 147:18, 147:19, 160:7, 270:11, 271:4, 280:8 187:4, 196:10, 226:16 relying [15] - 131:24, 131:25, 132:5, refer [3] - 91:10, 101:5, 141:23 reference [8] - 96:13, 96:16, 97:20, 132:6, 134:24, 134:25, 135:3, 135:5, 138:17, 156:13, 202:4, 207:6, 207:16, 137:21, 140:10, 265:10, 265:11, 216:6, 262:6 311:11 referenced [1] - 142:10 remaining [1] - 264:1 remains [1] - 220:6 referencing [1] - 142:12 remarkable [1] - 112:18 referring [6] - 87:5, 134:7, 172:20, remarks [2] - 254:9, 291:19 207:2, 267:19, 275:9 remedies [1] - 308:14 refers [1] - 297:17 refuse [1] - 138:25 remedy [3] - 289:19, 291:13, 302:19 refused [2] - 139:5, 260:17 remember [9] - 90:12, 101:14, 115:16, Regan [1] - 221:18 163:7, 163:8, 179:22, 183:9, 183:12, 190:8 regarding [3] - 268:9, 271:8, 303:24 remembering [1] - 176:7 regardless [3] - 88:15, 161:7, 167:2 reminder [1] - 179:19 regards [1] - 308:1 remove [2] - 133:22, 222:15 registry [2] - 180:6 removed [2] - 105:24, 228:3 regular [4] - 185:25, 189:6, 203:11, removing [1] - 133:20 272:9 rendering [1] - 199:7 regulation [4] - 123:12, 124:11, 125:5, 294:15 renders [2] - 142:24, 197:2 Regulations [1] - 284:17 repeat [2] - 129:20, 265:14 repeated [2] - 173:21, 187:4 regulations [2] - 255:9, 295:16 rejected [2] - 191:21, 196:12 repeatedly [1] - 140:7 rejecting [1] - 93:20 repeating [1] - 148:3 replied [1] - 208:4 relate [5] - 119:25, 120:1, 180:4, 180:17, reply [5] - 94:1, 123:23, 245:21, 258:13, 188:24 285:15 related [25] - 104:18, 106:10, 106:15, report [15] - 88:9, 106:23, 108:9, 153:15, 156:20, 163:18, 169:23, 170:2, 178:10, 179:6, 179:9, 181:24, 163:10, 164:5, 186:20, 194:15, 181:25, 182:1, 182:7, 211:18, 214:12, 220:10, 229:5, 237:12, 274:6, 274:20, 220:23, 225:17, 227:25, 240:12, 275:14, 275:23 280:14, 283:18 reporter [1] - 82:3 relates [9] - 88:21, 105:6, 112:5, 188:4, Reporter [1] - 314:13 225:7, 225:15, 230:23, 263:18 REPORTER [3] - 80:18, 115:8, 246:6 relation [1] - 180:5 reports [3] - 161:24, 222:5, 245:10 relationship [2] - 290:16, 300:19 representative [2] - 81:11, 130:8 relative [2] - 174:18, 200:25 representatives [1] - 130:16 relatively [5] - 92:13, 251:13, 294:14, represented [1] - 199:19 294:20, 301:23 reproducing [1] - 152:17 relevant [30] - 86:18, 94:9, 95:16, 103:7, requested [2] - 290:7, 298:5 119:5, 119:11, 125:13, 126:17, 128:9, requesting [2] - 289:3, 306:12 152:25, 157:17, 160:10, 167:24, require [23] - 95:3, 99:6, 155:14, 155:15, 181:12, 186:6, 198:23, 199:23,

173:24, 185:22, 190:2, 198:10,

resulting [5] - 126:23, 174:15, 256:24,

216:18, 231:2, 233:1, 233:3, 234:2, 241:19, 243:17, 244:8, 250:22, 255:9, 271:10, 286:3, 297:3 required [51] - 94:21, 97:11, 107:4, 113:1, 114:11, 116:7, 130:25, 140:17, 142:20, 156:14, 160:2, 160:25, 161:20, 162:12, 164:12, 164:21, 167:10. 167:12. 168:8. 168:12. 169:1. 169:5, 169:17, 169:19, 169:23, 170:8, 170:19, 172:16, 173:5, 173:12, 174:7, 174:24, 175:5, 186:25, 217:3, 217:20, 234:20, 239:1, 240:2, 241:1, 241:2, 241:10, 241:12, 245:6, 245:23, 246:22, 247:2, 271:14, 279:3, 285:4 requirement [19] - 89:19, 97:8, 97:13, 97:21, 99:6, 101:21, 114:16, 123:15, 187:3, 188:5, 216:20, 234:25, 235:1, 239:9, 250:19, 251:13, 251:22, 299:5, requirements [5] - 111:21, 162:10, 204:11, 290:20, 291:1 requires [27] - 88:22, 89:20, 93:25, 94:14, 94:15, 119:1, 123:12, 144:3, 171:7, 195:17, 217:17, 228:17, 228:19, 233:16, 233:18, 233:21, 234:21, 250:19, 250:21, 250:22, 276:20, 284:19, 286:8, 286:18, 287:19, 296:1, 302:25 requiring [2] - 113:24, 168:22 requisite [1] - 286:10 res [1] - 228:24 Research [1] - 193:16 reserve [2] - 150:4, 292:10 reserving[1] - 131:2 resolutioned [1] - 229:7 resolve [5] - 88:16, 108:10, 191:12, 252:4, 305:14 resolved [3] - 84:12, 96:4, 270:9 respect [17] - 90:18, 94:10, 112:1, 112:14, 112:16, 129:17, 130:2, 141:10, 152:16, 233:16, 239:14, 248:15, 261:15, 278:17, 284:9, 289:15, 292:5 respects [1] - 288:23 respond [6] - 128:23, 131:3, 134:25, 210:25, 260:17, 278:11 responded [6] - 109:5, 165:18, 203:8, 209:8, 219:20, 220:13 responding [3] - 82:21, 245:3, 272:25 response [15] - 109:2, 109:23, 127:24, 128:3, 153:18, 171:1, 201:9, 219:14, 219:19, 224:23, 260:15, 260:19, 267:14, 302:8 responses [4] - 127:23, 201:1, 206:14, 258:21 rest [2] - 162:6, 308:11 restate [1] - 257:10 result [7] - 110:23, 127:9, 127:13, 149:3, 174:14, 184:1, 293:5

resulted [1] - 197:10

261:24, 262:2 results [1] - 263:23 resurrects [1] - 258:3 retain [1] - 130:23 reticle [1] - 174:18 retracting [1] - 130:10 return [1] - 162:7 returns [1] - 162:6 review [2] - 149:19, 271:9 reviewed [2] - 135:10, 178:19 reviewing [1] - 179:8 Ric [1] - 100:14 rid [1] - 272:5 ridge [34] - 90:20, 189:15, 189:18, 190:3, 190:4, 190:22, 191:25, 192:9, 192:21, 192:25, 194:19, 194:20, 194:25, 195:9, 195:14, 197:3, 197:12, 198:4, 198:9, 273:5, 273:15, 274:4, 275:5, 275:6, 275:16, 275:18, 275:22, 276:21, 276:24, 277:3, 277:8, 278:20, 278:22, 279:15 ridges [2] - 82:6, 279:22 rifle [37] - 139:23, 139:25, 140:15, 140:16, 141:13, 141:16, 141:18, 141:22, 141:23, 141:24, 142:1, 142:4, 142:12, 142:18, 142:19, 143:9, 143:11, 143:13, 143:20, 144:4, 144:5, 144:6, 144:11, 144:12, 152:2, 153:3, 153:8, 162:16, 219:6, 220:9, 221:2, 264:4, 265:2, 265:7, 265:12 riflescope [31] - 85:15, 105:3, 118:17, 118:18, 120:4, 139:23, 139:25, 161:25, 162:4, 162:16, 170:13, 171:13, 172:15, 173:15, 174:19, 174:21, 218:21, 218:24, 219:1, 219:6, 220:22, 221:8, 241:20, 242:7, 244:14, 246:12, 246:14, 250:13, 250:16, 290:5, 298:14 riflescopes [29] - 120:2, 143:25, 144:1, 171:18, 173:18, 173:23, 174:4, 174:23, 176:19, 220:12, 220:14, 220:21, 220:24, 220:25, 221:6, 221:15, 221:17, 222:3, 222:11, 222:12, 244:12, 245:25, 271:10, 290:2, 299:2, 304:23, 306:14, 306:15, 308.8 right-hand [2] - 183:1, 243:24 rights [6] - 130:2, 130:3, 131:2, 225:21, 260:1, 289:15 rigid [2] - 88:10, 88:11 rings [1] - 288:5 ripe [1] - 265:16 rise [3] - 87:1, 194:1, 213:11 risk [3] - 131:3, 135:4, 135:12 Rives [2] - 80:2, 80:6 RMR [2] - 80:18, 314:12 road [1] - 137:21 roof [2] - 187:21, 187:22 Room [1] - 80:19

room [2] - 97:4, 147:10 rotated [1] - 170:25 rotation [7] - 86:21, 171:1, 269:11, 269:14, 269:15, 305:4 round [2] - 264:16, 264:25 routine [1] - 176:18 rubber [1] - 187:24 Rule [1] - 86:14 rule [19] - 97:7, 97:9, 97:10, 165:17, 165:22, 165:25, 166:13, 166:23, 167:4, 172:23, 231:10, 238:22, 238:23, 239:4, 241:16, 242:23, 280:9, 280:19, 305:24 rules [1] - 217:15 ruling [2] - 212:10, 215:2 run [2] - 160:8, 219:13 runs [1] - 238:14

S

S.C [1] - 80:10 Sabine [1] - 148:22 sacrificing [1] - 202:15 sale [8] - 148:11, 148:12, 223:22, 224:3, 224:12, 224:20, 285:22, 293:19 sales [23] - 202:23, 203:10, 203:11, 212:21, 223:15, 284:11, 284:12, 285:9, 285:19, 292:20, 293:3, 293:12, 294:3, 294:6, 294:10, 294:16, 299:20, 301:16, 302:2, 302:5, 312:20 salespeople [2] - 300:9, 312:19 Salmon [1] - 80:15 salvage [2] - 163:23, 168:1 SAP [1] - 302:20 sat [3] - 102:23, 204:25, 260:1 satisfactorily [1] - 169:1 satisfied [3] - 285:5, 288:14, 291:18 satisfy [5] - 161:5, 187:2, 235:23, 235:24, 302:14 save [1] - 278:15 saw [22] - 94:23, 108:6, 163:15, 175:18, 176:13, 177:24, 177:25, 178:2, 181:7, 181:14, 181:21, 182:8, 182:19, 183:23, 190:3, 205:5, 209:6, 224:16, 230:24, 270:21, 271:21 scanning [1] - 104:21 scary [1] - 293:21 schedule [1] - 283:7 Schmidt [55] - 84:5, 136:15, 136:17, 144:19, 144:22, 144:25, 145:6, 145:10, 145:18, 145:19, 145:24, 146:8, 146:17, 146:25, 148:5, 148:8, 148:10, 148:18, 148:19, 148:22, 148:23, 149:4, 157:20, 158:10, 159:3, 159:6, 185:4, 199:23, 200:4, 200:12, 211:23, 214:2, 214:5, 214:8, 222:21, 222:24, 223:15, 223:18, 223:22, 223:25, 224:19, 224:20, 224:23, 225:16, 226:8, 226:23, 227:11, 227:18, 227:20, 263:13, 266:3, 266:6,

267:9, 267:19 Schmitt [1] - 170:1 scope [74] - 85:11, 85:24, 86:1, 86:12, 87:7, 94:5, 94:6, 95:1, 95:25, 100:21, 105:1, 106:22, 108:12, 109:17, 111:10, 136:17, 140:1, 144:20, 144:23, 145:1, 145:11, 145:24, 146:6, 146:9, 146:17, 146:18, 146:21, 146:25, 147:23, 148:6, 148:8, 174:13, 182:4, 185:8, 191:1, 195:24, 211:24, 228:2, 234:23, 238:5, 239:24, 240:25, 241:23, 242:1, 243:13, 244:20, 246:2, 251:16, 266:4, 266:19, 266:21, 266:22, 267:1, 267:2, 267:4, 267:5, 267:18, 267:19, 268:21, 268:24, 273:4, 273:12, 278:1, 279:1, 279:2, 280:10, 296:7, 310:16, 310:18, 310:19, 310:22, 311:20 scopes [32] - 144:25, 145:25, 146:1, 146:10, 146:15, 146:22, 148:20, 149:14, 149:15, 149:17, 149:21, 149:25, 151:25, 202:24, 210:19, 211:24, 222:24, 224:7, 224:8, 226:12, 250:3, 250:9, 268:13, 294:17, 294:19, 298:22, 301:5, 301:13, 306:3, 310:3, 310:23, 311:18 Scott [4] - 80:13, 81:15, 168:4, 168:9 scratch [1] - 242:8 screen [4] - 82:2, 145:21, 269:3, 278:21 screw [13] - 87:16, 170:20, 170:22, 230:4, 230:8, 230:10, 230:12, 230:17, 237:20, 238:4, 238:11, 238:12 screwed [3] - 85:17, 85:24, 124:8 seal [1] - 187:23 **Seals** [2] - 293:13, 300:8 searching [1] - 123:16 seat [2] - 137:12, 209:13 seated [2] - 81:2, 184:22 Seattle [1] - 80:4 second [50] - 91:3, 97:21, 100:3, 110:25, 117:7, 118:11, 145:16, 150:19, 153:12, 154:13, 154:16, 157:15, 159:25, 165:23, 166:1, 166:2, 166:5, 166:12, 166:17, 166:20, 169:15, 173:25, 176:5, 177:19, 179:3, 181:6, 185:5, 189:14, 189:17, 191:2, 201:14, 210:8, 216:20, 216:21, 234:5, 234:24, 235:12, 255:5, 258:11, 258:25, 264:21, 268:7, 278:15, 278:25, 279:1, 279:6, 287:21, 306:21, 312:5 secondly [1] - 305:7 secret [2] - 200:11, 225:19 secretary [1] - 260:19 Secretary [1] - 293:6 section [5] - 152:17, 152:18, 184:16, 213:25, 233:13 Section [6] - 140:9, 284:10, 285:20,

292:20, 293:5, 293:12

sector [1] - 289:24

securing [1] - 305:3 see [68] - 82:2, 82:9, 85:9, 85:12, 85:21, 86:5, 89:12, 95:16, 106:22, 122:2, 123:16, 141:20, 151:8, 151:22, 152:11, 152:13, 152:19, 154:22, 155:3, 155:4, 155:10, 155:18, 156:10, 158:10, 158:16, 159:11, 159:13, 159:18, 161:23, 166:12, 167:20, 170:1, 172:6, 175:22, 177:13, 177:18, 177:20, 180:1, 180:5, 183:5, 184:20, 187:8, 187:11, 201:7, 202:17, 209:9, 214:19, 214:22, 217:24, 218:16, 218:17, 224:14, 224:17, 228:25, 230:8, 230:11, 233:24, 235:2, 237:8, 237:13, 237:23, 243:12, 247:1, 264:11, 273:20, 277:12, 282:22, 289:11 seeing [4] - 165:2, 171:16, 183:11, 225:8 seek [1] - 302:19 seeking [1] - 256:22 seem [4] - 101:15, 267:3, 296:24, 298:2 sees [3] - 147:10, 147:11, 276:5 segment [2] - 199:14, 278:7 select [3] - 143:9, 222:3, 300:3 selecting [1] - 244:13 sell [4] - 206:16, 227:6, 288:8, 288:9 selling [9] - 145:24, 146:9, 227:18, 267:9, 288:7, 296:22, 301:3, 301:4, 308:7 sells [1] - 289:22 send [2] - 130:22, 201:5 sending [1] - 205:16 sends [1] - 264:25 sense [19] - 82:17, 82:19, 109:12, 160:14, 168:13, 176:12, 202:16, 213:19, 217:15, 231:22, 238:4, 243:8, 253:21, 265:3, 286:23, 287:24, 309:13, 309:14, 309:15 sensitive [5] - 161:12, 162:13, 162:15, 171:5 sent [14] - 100:12, 102:16, 102:25, 103:16, 127:20, 132:24, 159:12, 175:20, 178:5, 183:10, 183:13, 201:8, 226:23, 247:10 sentence [8] - 117:22, 122:3, 122:17, 123:13, 124:17, 125:12, 255:2, 255:7 separate [8] - 96:20, 104:7, 131:19, 243:19, 276:21, 289:25, 308:9, 310:6 separately [3] - 96:20, 96:24, 119:8 September [2] - 163:10, 163:17 series [7] - 104:15, 127:18, 151:2, 151:5, 201:7, 209:19, 258:16 seriously [1] - 273:16 served [1] - 123:17 serves [1] - 124:11 services [3] - 302:14, 303:6, 309:23 session [1] - 282:12 set [13] - 85:4, 139:19, 143:18, 144:6, 147:12, 148:17, 176:14, 193:24,

213:8 settlement [1] - 281:24 setup [1] - 213:9 seven [1] - 272:14 several [6] - 140:21, 157:23, 165:19, 168:11, 265:18, 298:21 severe [7] - 161:25, 169:22, 171:14, 171:19, 241:12, 241:13, 243:24 shake [1] - 244:9 shaking [1] - 244:9 shall [2] - 280:23, 283:14 sham [12] - 109:21, 110:1, 110:4, 110:9, 110:17, 110:18, 110:23, 111:7, 165:17, 166:13, 166:23, 167:3 shape [7] - 86:19, 171:25, 175:2, 242:10, 248:15, 248:19, 249:8 shapes [1] - 249:2 shield [1] - 291:23 shift [4] - 158:14, 170:23, 218:1, 222:20 shifted [1] - 153:17 shifting [1] - 239:11 **shifts** [4] - 99:9, 99:18, 156:5, 239:16 shipment [1] - 149:18 shipped [4] - 148:20, 149:15, 149:18, 224:24 shock [1] - 171:24 shooting [1] - 120:2 **short** [4] - 88:10, 90:16, 110:16, 251:13 shorthand [1] - 142:14 shortly [4] - 99:3, 132:25, 240:14, 262:18 shot [2] - 174:16, 264:20 **shoulder** [1] - 98:7 show [41] - 84:22, 97:22, 102:11, 102:21, 110:20, 117:15, 126:22, 140:9, 143:3, 144:24, 145:23, 146:24, 148:10, 156:12, 156:14, 158:5, 158:22, 160:11, 164:4, 164:8, 164:9, 164:10, 165:7, 168:25, 183:15, 193:11, 196:13, 224:6, 226:13, 229:5, 229:6, 229:7, 229:16, 270:23, 271:3, 271:19, 271:20, 290:12, 290:14, 295:23, 311:3 showed [6] - 163:12, 187:18, 193:7, 228:25, 262:19, 262:25 showing [22] - 97:3, 103:6, 104:16, 116:7, 121:5, 126:21, 145:16, 152:2, 181:13, 181:16, 218:16, 226:22, 230:9, 258:23, 266:11, 280:15, 284:19, 286:8, 286:10, 290:1, 291:4, 291:24 showings [2] - 111:3, 291:14 shown [21] - 91:21, 92:1, 92:16, 92:22, 98:20, 105:10, 132:24, 139:22, 140:14, 145:21, 147:7, 152:20, 154:22, 156:17, 182:17, 260:12, 270:18, 290:6, 291:1, 291:7, 311:1 shows [7] - 85:4, 91:9, 145:23, 152:16,

213:9, 259:18, 281:6, 287:8, 301:20

setting [5] - 141:17, 153:4, 174:13,

189:21, 230:8, 303:22 shutdown [1] - 274:15 side [39] - 82:17, 82:20, 85:13, 86:8, 107:2. 118:6. 118:13. 118:14. 122:20. 146:9, 152:3, 152:11, 152:20, 154:23, 155:7, 155:8, 183:1, 185:3, 186:4, 186:20, 187:5, 188:5, 207:23, 222:19, 229:6, 234:17, 234:23, 236:22, 238:3, 238:5, 238:14, 238:16, 242:4, 243:23, 243:24, 268:13 sided [1] - 251:7 sides [1] - 285:23 sides' [1] - 282:4 Siegel [2] - 80:13, 81:19 **SIEGEL** [1] - 81:19 sight [31] - 139:23, 140:16, 140:17, 141:13, 141:16, 141:18, 141:22, 141:23, 141:24, 142:1, 142:4, 142:12, 142:18, 142:19, 143:9, 143:11, 143:13, 144:4, 144:5, 144:6, 144:11, 144:12, 152:3, 153:3, 153:8, 219:6, 220:23, 264:4, 265:7, 269:16 sighting [3] - 220:21, 220:22, 220:25 sights [3] - 143:20, 220:9, 265:2 signature [3] - 314:6, 314:7 signed [4] - 162:24, 178:21, 179:7, significant [2] - 126:5, 156:22 significantly [4] - 112:3, 207:5, 218:11, 227:5 signing [1] - 314:3 signs [2] - 262:19, 262:25 silence [25] - 127:6, 127:7, 164:13, 201:25. 202:19. 204:18. 204:19. 204:20, 205:18, 206:12, 206:25, 207:6, 207:17, 208:14, 210:4, 210:7, 211:15, 217:5, 257:12, 257:14, 257:16, 258:4, 272:9, 272:10 similar [9] - 155:13, 162:19, 187:7, 189:20, 190:11, 190:23, 219:23, 281:19, 293:11 similarly [2] - 98:18, 306:17 simple [26] - 107:5, 139:21, 158:9, 160:24, 161:19, 164:21, 167:9, 167:10, 167:17, 167:21, 168:24, 169:2, 169:10, 169:15, 170:19, 170:23, 185:21, 186:8, 187:7, 215:1, 218:22, 241:11, 281:15, 297:10, 298:25, 303:3 simpler [1] - 158:1 simplest [1] - 188:3 simplicity [1] - 168:5 simplified [7] - 285:7, 294:12, 294:15, 297:14, 302:10, 302:13, 302:20 simplify [1] - 222:25 simply [37] - 84:14, 88:22, 90:8, 110:24, 113:14, 114:13, 126:15, 140:1, 146:7, 186:6, 186:18, 188:15, 194:7, 197:18, 199:5, 205:10, 213:6, 213:13, 242:11, 244:6, 246:11, 246:23, 250:1, 251:2,

261:21, 266:13, 267:8, 272:4, 273:2, 170:18, 244:4 275:21, 275:24, 277:18, 279:7, slop [1] - 174:9 298:24, 299:5, 299:6, 302:20 slot [3] - 238:8, 238:10, 238:13 simulate [1] - 244:9 slow [3] - 92:25, 115:9, 246:7 simulated [2] - 107:25, 169:20 small [7] - 86:6, 116:17, 142:10, 222:9, **simulations** [1] - 168:19 294:14, 294:20, 301:23 single [27] - 97:23, 115:5, 115:6, smaller [1] - 299:25 115:11, 115:14, 115:20, 115:21, snaps [2] - 238:9, 238:16 115:24, 115:25, 116:1, 116:2, 133:18, sniper [4] - 264:7, 264:15, 264:21, 140:9, 177:8, 185:19, 187:25, 194:15, 264:24 235:23, 252:14, 279:18, 279:19, sniper's [1] - 264:11 279:21, 299:25, 310:16, 310:18 so-called [1] - 285:7 single-action [5] - 115:5, 115:6, 115:11, soap [1] - 119:25 115:14, 115:20 soft [1] - 187:24 single-click [1] - 279:19 Software [1] - 215:9 sit [1] - 226:4 software [2] - 297:25, 298:5 sits [2] - 90:9, 230:12 solar [1] - 187:22 sitting [3] - 154:23, 199:21, 205:1 sold [7] - 146:18, 222:24, 224:22, situation [9] - 169:20, 207:16, 208:5, 288:24, 295:1, 295:2, 298:16 214:15, 215:7, 219:13, 259:19, sole [1] - 289:4 305:23, 309:11 solid [3] - 88:10, 88:11, 236:20 situations [3] - 141:1, 186:8, 291:16 **Solving** [2] - 161:24, 171:13 six [11] - 121:1, 202:10, 202:13, 205:9, **someone** [10] - 108:23, 119:3, 123:15, 212:15, 258:1, 258:3, 258:5, 272:7, 149:5, 149:6, 179:21, 242:10, 243:1, 272:9, 272:13 250:13, 250:14 six-year [5] - 205:9, 212:15, 258:1, sometimes [4] - 140:24, 160:6, 309:24 258:3, 272:13 somewhat [5] - 92:8, 120:24, 186:7, size [2] - 244:7, 267:8 233:1, 238:16 skill [33] - 107:6, 114:24, 115:23, somewhere [1] - 244:10 116:10, 116:23, 116:24, 118:8, soon [4] - 99:16, 280:11, 281:25, 303:5 120:14, 120:16, 143:8, 143:19, 194:9, sorry [9] - 93:1, 95:24, 115:10, 128:18, 194:21, 195:12, 196:3, 196:15, 137:12, 151:7, 216:20, 230:17, 272:20 196:20. 197:2. 222:2. 251:9. 251:19. sort [5] - 230:19, 243:22, 258:5, 289:14, 252:1, 252:3, 252:10, 252:12, 252:22, 305:22 252:25, 253:13, 273:19, 275:3, sounds [6] - 140:20, 192:2, 260:3, 277:11, 277:19, 279:14 264:19, 280:24, 283:19 skilled [9] - 90:21, 90:24, 118:2, 118:16, source [1] - 183:22 119:1, 119:4, 143:10, 144:9, 251:18 sourced [1] - 289:4 skipped [1] - 143:22 Southern [1] - 128:7 slidably [5] - 94:11, 94:20, 154:17, Southwest [1] - 215:9 235:3, 269:17 sovereign [9] - 286:11, 286:13, 287:16, slide [51] - 86:13, 87:2, 87:11, 94:6, 290:23, 302:12, 302:23, 303:24, 95:25, 101:8, 105:9, 106:5, 107:12, 305:18, 305:19 132:23, 133:11, 145:21, 151:3, 152:2, space [1] - 221:25 152:12, 153:10, 154:17, 155:2, span [1] - 206:20 158:14, 171:3, 174:25, 182:25, spark [2] - 169:24, 175:5 187:19, 188:16, 190:3, 190:10, **Sparkman** [1] - 80:14 190:19, 191:9, 197:24, 228:1, 228:24, speaking [1] - 109:10 229:7, 233:11, 233:12, 235:3, 235:4, spec [2] - 294:25, 295:2 235:7, 237:8, 237:10, 239:22, 248:20, special [8] - 161:18, 293:14, 294:20, 262:14, 269:3, 269:15, 273:10, 294:21, 296:9, 299:3, 301:14 294:18, 297:17, 303:14, 304:14, 311:1 specialized [1] - 299:1 slides [11] - 83:9, 95:14, 105:20, 120:9, specially [1] - 307:15 151:6, 161:9, 166:18, 171:1, 232:16, specific [35] - 86:19, 91:15, 91:21, 92:1, 257:11, 292:15 93:22, 102:5, 110:20, 124:16, 126:15, sliding [1] - 272:13 129:9, 129:24, 161:3, 167:12, 217:15, slight [2] - 174:17, 174:20 238:24, 239:6, 242:4, 267:3, 284:16, slightly [6] - 107:13, 153:17, 234:12, 286:20, 287:15, 296:4, 296:10, 246:14, 248:21, 248:22 296:11, 297:4, 297:21, 298:4, 299:1, Slip [7] - 107:3, 107:9, 169:7, 169:12,

299:7, 300:16, 305:9, 309:23, 310:2, standpoint [1] - 208:11 STRECK [1] - 194:5 310:12, 312:19 stars [1] - 93:16 Street [2] - 80:3, 80:15 specifically [10] - 93:9, 100:14, 111:8, start [14] - 82:17, 83:17, 150:11, 151:13, strenuously [1] - 198:5 136:15, 189:2, 284:17, 288:2, 290:2, 153:2, 160:13, 184:16, 215:3, 217:8, stress [1] - 169:24 293:15, 310:22 218:7, 232:20, 233:15, 238:20, 268:6 stricken [1] - 245:11 specification [36] - 91:16, 91:21, 92:2, started [3] - 83:8, 88:18, 246:1 strict [1] - 193:23 92:16, 92:23, 93:14, 93:19, 93:23, starting [11] - 83:15, 87:5, 97:6, 127:11, strictly [2] - 286:13, 305:20 113:2, 113:5, 113:8, 115:17, 116:5, 159:14, 178:12, 239:19, 239:21, strike [1] - 111:6 117:12, 117:13, 122:3, 122:18, 249:17, 284:5, 311:24 string [1] - 169:21 122:25, 123:10, 123:13, 123:20, starts [4] - 96:14, 129:20, 223:25 strong [2] - 126:10, 213:4 124:18, 125:3, 125:12, 231:12, state [4] - 81:7, 211:5, 211:6, 295:20 strongest [1] - 139:15 249:21, 250:12, 250:18, 251:15, statement [15] - 109:11, 109:14, 109:18, struck [1] - 258:9 255:2, 255:7, 269:4, 269:8, 279:4, 117:16, 130:10, 138:12, 138:18, structure [14] - 84:15, 85:2, 88:10, 280:3, 280:6 162:3, 166:22, 167:10, 173:25, 88:11, 91:9, 95:15, 112:21, 113:9, specifications [2] - 287:21 181:14, 182:2, 209:3, 251:15 113:10, 113:12, 113:15, 158:11, specificity [1] - 154:14 statements [10] - 110:25, 148:19, 237:21, 306:1 specifics [1] - 268:5 148:21, 148:25, 162:4, 171:7, 181:24, structures [3] - 151:24, 235:22, 235:24 specifies [2] - 198:8, 269:20 248:5, 248:7, 266:6 stuck [2] - 107:18, 209:18 specify [2] - 296:7, 297:19 STATES[2] - 79:1, 79:19 study [1] - 151:23 speedy [1] - 297:15 states [3] - 276:11, 286:12, 286:17 stuff [2] - 196:2. 300:4 spelled [1] - 109:23 **States** [10] - 80:18, 145:1, 145:12, **sub** [3] - 196:17, 307:16, 309:1 spend [1] - 282:10 146:11, 146:23, 149:22, 150:1, sub-combinations [1] - 196:17 spent [1] - 239:20 267:10, 286:21, 301:17 subcontractor [10] - 295:14, 300:19, spiral [72] - 85:19, 85:21, 86:19, 95:1, statute [10] - 126:15, 255:16, 259:4, 300:25, 303:10, 306:7, 306:18, 96:10, 97:1, 100:15, 103:8, 104:11, 272:6, 272:15, 295:13, 295:15, 307:15, 307:18, 309:10, 309:11 106:6, 106:10, 106:15, 106:16, 108:6, 300:24, 308:3, 312:14 subcontractors [1] - 295:17 108:15, 112:8, 112:12, 112:13, statutorily [1] - 202:12 **subject** [12] - 155:19, 168:25, 170:5, 145:11, 145:25, 146:6, 146:13, statutory [4] - 259:1, 259:8, 259:10, 174:14, 242:2, 244:13, 245:10, 146:25, 148:9, 148:13, 151:17, 300:24 281:23, 283:18, 302:16, 302:23, 152:13, 152:18, 154:8, 154:15, stay [2] - 128:2, 246:8 304:17 154:21, 155:12, 157:20, 174:10, steering [8] - 242:10, 242:13, 242:18, subjected [2] - 162:5, 170:2 183:1, 183:5, 183:9, 189:2, 189:9, 242:19, 242:21, 243:1, 243:3 submersion [1] - 162:1 189:11, 189:15, 191:9, 200:2, 200:10, step [3] - 97:22, 219:4, 292:24 submit [1] - 217:12 200:19, 202:24, 206:10, 210:20, stepping [1] - 140:6 submits [1] - 296:3 211:25, 218:18, 224:6, 224:9, 226:13, **STEVENS**[1] - 79:3 submitted [4] - 163:10, 164:15, 178:13, 226:20, 227:8, 240:12, 241:19, Stevens [3] - 81:5, 81:12, 284:8 299:23 241:23, 242:4, 243:17, 248:15, stick [3] - 85:25, 94:22, 246:12 submitting [1] - 165:13 248:19, 248:20, 249:1, 269:13, sticking [2] - 85:23, 108:6 subparts [1] - 154:11 269:17, 273:4, 275:3, 280:14 sticks [4] - 94:25, 234:23, 238:5, 258:3 subpoenaed [1] - 214:8 spiraling [1] - 269:14 still [19] - 97:14, 98:16, 100:5, 113:21, subs [3] - 290:11, 290:17, 300:5 spirit [1] - 298:24 125:21, 134:23, 149:14, 149:25, subsequently [2] - 142:11, 209:24 **split** [1] - 150:15 162:7, 166:24, 202:12, 208:23, substance [5] - 134:2, 134:4, 167:4, Sport [10] - 118:21, 118:22, 119:7, 208:24, 210:20, 242:15, 245:19, 168:1, 274:22 119:8, 119:10, 119:12, 119:13, 257:7, 274:17 substantial [1] - 165:2 143:18, 143:22, 252:18 Stockdill [4] - 147:3, 147:9, 147:20, subtle [1] - 174:17 sports [1] - 120:2 147:21 success [1] - 175:14 stage [6] - 140:22, 172:25, 173:9, Stoel [2] - 80:2, 80:6 successful [1] - 254:20 173:12, 176:20, 220:10 stood [2] - 121:22, 224:14 sue [21] - 126:25, 128:2, 129:9, 130:23, stages [1] - 221:19 stop [7] - 132:15, 133:2, 155:18, 184:16, 131:2, 131:6, 131:25, 134:8, 134:19, stakes [1] - 174:20 214:22, 305:3, 312:25 134:20, 134:22, 139:3, 205:18, stale [1] - 160:6 stopped [2] - 210:12, 210:16 210:15, 212:21, 257:19, 262:19, stand [4] - 166:1, 247:17, 260:20, stops [1] - 133:4 262:22, 272:14, 289:13, 302:21 278:14 store [1] - 225:24 sued [11] - 132:17, 135:5, 139:2, standard [22] - 97:7, 97:9, 97:16, 99:21, story [9] - 98:1, 98:4, 102:1, 109:15, 203:21, 204:4, 206:11, 207:7, 262:23, 100:8, 100:10, 110:19, 159:23, 125:5, 151:4, 199:23, 215:13, 239:7 286:25 170:10, 196:25, 197:15, 238:23, straightforward [3] - 160:15, 170:9, suffer [1] - 259:10 238:24, 239:4, 239:16, 241:16, 170:16 suffers [1] - 257:22 242:23, 251:22, 251:25, 275:8, 279:7, strains [1] - 223:17 sufficient [37] - 97:19, 98:6, 98:17, 287:25 strategic [1] - 209:18 99:15, 101:22, 105:15, 111:10, 116:3, standing [2] - 137:13, 251:12 Streck [1] - 194:5

125:4, 130:17, 135:16, 148:10, 156:25, 168:25, 193:11, 196:13, 196:21, 197:4, 209:2, 222:15, 240:3, 241:4, 241:8, 241:9, 241:17, 245:17, 251:17, 255:3, 255:23, 255:25, 256:3, 257:7, 279:8, 279:18, 279:21, 284:19, sufficiently [7] - 107:5, 168:24, 191:15, 230:20, 239:7, 240:8, 267:3 suggest [3] - 165:22, 175:24, 271:17 suggested [5] - 172:4, 178:9, 198:18, 213:8, 228:22 suggesting [2] - 181:8, 275:10 suggestion [4] - 175:12, 186:22, 198:22, 295:1 suggests [4] - 97:15, 196:18, 265:5, 265:12 suit [12] - 206:22, 207:21, 208:4, 214:10, 217:22, 261:5, 261:6, 262:17, 289:25, 291:2, 293:18, 303:1 suitable [2] - 217:11, 268:3 Suite [4] - 80:3, 80:7, 80:11, 80:15 sum [2] - 194:14, 197:7 summary [82] - 81:5, 83:20, 83:22, 84:3, 84:20, 89:1, 92:4, 96:2, 96:4, 96:5, 96:9, 96:22, 99:23, 101:10, 101:22, 103:3, 114:20, 116:21, 117:2, 118:9, 118:11, 120:18, 120:21, 120:23, 122:19, 126:3, 128:8, 128:9, 128:10, 128:13, 128:19, 130:17, 135:8, 136:1, 136:4, 142:25, 144:16, 144:21, 147:17, 160:15, 160:21, 163:16, 163:24, 164:15, 164:25, 165:2, 165:13, 171:22, 174:7, 175:11, 193:18, 193:24, 193:25, 197:24, 219:15, 220:7, 223:6, 229:20, 230:20, 230:21, 244:22, 244:25, 247:24, 252:6, 253:4, 256:8, 262:13, 262:15, 268:3, 270:5, 271:13, 273:24, 275:24, 275:25, 276:12, 277:10, 279:9, 279:25, 285:15, 292:4, 292:19, 298:8 summer [3] - 100:12, 101:15, 200:2 sun [1] - 272:23 **Sundance** [3] - 118:21, 118:23, 119:3 superior [1] - 293:19 supervised [1] - 221:20 **supplement** [1] - 309:6 supplemental [3] - 109:25, 111:4, 240:1 supplied [1] - 298:16 supplies [3] - 293:8, 294:1, 294:14 supply [1] - 290:18 supplying [2] - 293:2, 293:25 support [22] - 115:19, 115:22, 116:3, 117:24, 125:25, 135:17, 161:7, 192:8, 193:22, 195:23, 196:11, 197:9, 215:20, 232:5, 258:6, 273:24, 274:4, 277:4, 285:6, 288:15, 288:16, 294:10 **supported** [6] - 113:1, 187:9, 193:21, 230:18, 230:20, 292:2 **supporting** [5] - 193:22, 197:8, 215:10,

276:6, 276:11 supports [2] - 135:22, 294:23 supposed [2] - 136:16, 244:5 Supreme [4] - 126:13, 186:13, 258:9, 272.5 surface [1] - 161:10 surprise [2] - 101:3, 180:14 surprising [3] - 112:18, 112:24, 293:1 surrender [1] - 205:23 surrendering [1] - 208:16 surreply [5] - 109:5, 109:24, 110:18, 165:18, 166:19 surrounding [1] - 237:16 survive [2] - 165:13, 193:25 suspenders [9] - 121:11, 205:11, 208:18, 208:20, 217:14, 217:18, 217:19, 217:20 **suspicious** [1] - 225:25 switch [2] - 218:3, 274:8 switching [1] - 242:6 swore [1] - 275:23 sworn [1] - 181:14 synonymous [2] - 302:11, 302:21 synthesis [1] - 168:24 system [7] - 103:12, 103:15, 145:11, 221:10, 244:5, 264:19, 265:3 systems [2] - 221:2, 245:25 Systems [2] - 107:3, 107:9

T

table [2] - 244:9, 312:8 tacked [1] - 250:1 tackle [1] - 83:17 tail [1] - 205:9 taillight [1] - 242:15 talks [13] - 94:9, 99:8, 131:13, 139:24, 139:25, 166:20, 188:13, 221:8, 234:8, 234:9, 242:19, 257:20 target [1] - 174:18 teaches [1] - 158:7 tear [2] - 226:17, 226:21 tear-apart [2] - 226:17, 226:21 teardown [5] - 136:16, 136:21, 145:17, 146:24, 266:20 Tech [1] - 279:17 technical [3] - 151:14, 151:24, 155:19 technically [1] - 208:7 technological [1] - 228:15 Technologies [6] - 115:2, 115:4, 115:12, 115:13, 193:16, 279:20 technologies [2] - 291:3, 305:11 technology [6] - 170:12, 286:2, 290:5, 304:22, 304:25, 305:9 TecSEC [1] - 297:25 telescopic [26] - 139:23, 140:15, 140:16, 141:13, 141:16, 141:18, 141:22, 141:23, 141:24, 141:25, 142:1, 142:3, 142:12, 142:18, 142:19, 144:4, 144:5, 144:6, 152:2, 153:3,

265:7 tellingly [1] - 130:18 temperature [3] - 169:24, 170:3, 175:4 temperatures [2] - 171:20, 175:3 tens [1] - 300:2 tension [1] - 110:25 tentative [1] - 88:8 term [18] - 84:9, 84:10, 84:16, 85:1, 89:7, 90:4, 91:18, 92:10, 96:1, 112:19, 113:8, 113:17, 115:11, 276:17, 276:18, 285:9 terminology [1] - 139:23 terms [25] - 84:11, 129:11, 140:22, 141:2. 144:10. 153:1. 158:11. 216:11. 218:18, 231:13, 251:24, 251:25, 252:12, 282:5, 284:23, 285:4, 285:5, 286:5, 290:25, 291:6, 304:4, 304:25, 305:3, 311:9 test [33] - 106:23, 107:17, 107:24, 113:3, 113:4, 115:18, 132:13, 140:6, 142:21, 169:25, 186:24, 195:17, 241:2, 241:15, 242:14, 243:9, 244:18, 244:19, 275:19, 277:14, 277:16, 287:7, 287:8, 287:19, 288:14, 288:15, 288:16, 290:8, 290:25, 295:19, 295:21, 295:22, 297:3 tested [20] - 106:22, 108:21, 108:24, 109:16, 111:10, 163:1, 168:15, 168:16, 168:20, 176:19, 239:25, 240:16, 240:21, 241:21, 243:15, 246:1, 247:1, 271:23, 280:10, 280:11 testified [24] - 86:17, 100:11, 100:12, 100:19, 101:7, 102:22, 147:9, 163:4, 175:14, 176:17, 178:2, 178:3, 178:24, 180:16, 182:20, 207:9, 207:25, 209:24, 221:12, 221:20, 240:24, 241:22, 242:1, 280:10 testifies [1] - 106:4 testify [3] - 118:24, 149:9, 252:20 testifying [2] - 109:11, 162:25 testimonies [1] - 180:10 testimony [139] - 84:18, 84:21, 86:13, 86:14, 91:11, 92:5, 97:11, 97:12, 97:13, 97:14, 97:15, 97:18, 100:9, 100:25, 101:3, 101:4, 101:9, 101:12, 101:20, 101:21, 101:25, 102:6, 102:15, 102:25, 104:13, 104:22, 104:23, 105:7, 105:14, 105:17, 109:1, 109:3, 109:9, 109:10, 109:19, 110:4, 110:7, 110:8, 110:9, 110:15, 110:22, 111:1, 111:9, 116:24, 117:2, 117:3, 118:15, 118:16, 130:10, 131:23, 132:13, 133:11, 134:17, 136:24, 143:14, 143:17, 145:17, 147:19, 147:21, 148:3, 158:20, 158:21, 160:3, 160:4, 160:5, 160:8, 160:9, 161:3, 162:23, 164:5, 164:19, 165:12, 165:16, 165:23, 166:4, 166:7, 166:9, 166:10, 166:16, 167:11, 173:13,

153:8, 219:6, 220:9, 264:4, 265:2,

175:16, 175:23, 177:15, 177:18, 177:23, 177:25, 178:1, 178:12, 179:19, 181:7, 181:19, 183:23, 192:11, 197:17, 202:6, 207:2, 207:5, 207:13, 207:23, 208:2, 209:6, 211:11, 219:2, 219:3, 222:4, 222:15, 227:1, 230:19, 240:6, 241:4, 245:22, 245:23, 246:10, 246:19, 246:22, 246:23, 247:14, 247:16, 247:21, 248:2, 248:13, 249:12, 249:13, 249:14, 251:24, 253:15, 253:16, 261:18, 264:4, 264:5, 273:25, 274:3, 279:13, 312:19

107:19, 108:12, 111:5, 160:25, 161:19, 162:1, 162:11, 163:2, 163:4, 163:7, 163:8, 163:15, 163:16, 163:20, 163:21, 164:5, 164:6, 164:12, 164:21, 167:10, 167:12, 167:13, 167:22, 168:7, 168:10, 168:22, 169:1, 169:5, 169:11, 169:17, 169:19, 169:20, 169:23, 170:8, 170:19, 171:8, 171:14, 172:15, 172:16, 173:5, 173:10, 173:12, 173:24, 174:7, 174:23, 175:5, 175:8, 176:9, 176:10, 176:12, 176:16, 238:25, 239:19, 239:22, 240:2, 240:4, 240:7, 241:1, 241:4, 241:6, 241:8, 241:9, 241:10, 241:12, 241:15, 241:16, 242:2, 242:18, 242:22, 243:2, 243:5, 243:17, 243:20, 243:23, 244:2, 244:6, 244:17, 245:22, 246:15, 246:22, 247:2, 247:3, 270:13, 270:14, 270:19, 271:8, 271:10, 271:13, 280:20 tests [7] - 162:1, 162:2, 171:15, 171:16 text [5] - 146:3, 189:4, 189:8, 190:1, 237:13

THE [134] - 79:1, 79:2, 79:18, 80:2, 80:9, 81:2, 81:3, 81:17, 81:24, 82:5, 82:9, 82:25, 83:3, 83:6, 83:12, 84:6, 89:3, 89:9, 89:11, 90:3, 90:5, 90:22, 91:2, 91:5, 92:25, 95:4, 95:9, 95:17, 95:20, 96:6, 115:8, 137:6, 137:12, 137:18, 138:4, 139:11, 139:17, 150:6, 151:6, 151:8, 151:12, 155:21, 176:5, 176:21, 177:1, 184:15, 184:20, 184:22, 191:2, 191:12, 192:2, 192:7, 192:15, 199:15, 199:17, 212:23, 213:6, 213:13, 213:16, 214:23, 217:25, 222:22, 227:21, 228:21, 229:9, 229:21, 232:10, 232:13, 233:6, 234:5, 234:15, 237:19, 237:24, 238:7, 238:13, 238:18, 242:25, 243:6, 246:6, 253:23, 265:25, 267:12, 267:16, 268:7, 268:9, 268:15, 272:17, 272:22, 274:14, 278:8, 278:10, 278:13, 278:16, 280:22, 281:3, 281:17, 282:8, 282:15, 282:24, 283:1, 283:7, 283:11, 283:20, 283:24, 292:12, 292:16, 295:4, 295:11, 296:20, 297:1, 299:13, 300:18, 301:18, 302:7, 302:9, 305:25, 306:9, 306:20, 307:2, 307:7, 307:12,

307:24, 308:9, 308:17, 308:20, 308:24, 309:2, 309:4, 309:14, 311:22, 312:11, 312:21, 313:3, 313:7 themselves [4] - 146:11, 193:7, 206:16, 214:16 theory [2] - 200:17, 292:21 thereafter [2] - 200:7, 262:18 therefore [28] - 91:7, 107:22, 107:23, 109:17, 116:2, 117:4, 117:24, 121:3, 122:6, 122:16, 123:21, 126:16, 132:9, 140:18, 141:25, 142:22, 144:8, 150:17, 150:21, 184:3, 196:17, 220:12, 253:1, 259:9, 259:16, 260:9, 265:13, 303:20 therein [1] - 312:14 thereof [1] - 196:6 ThermoLife [4] - 128:6, 128:9, 128:12, 135:19 they've [12] - 157:6, 175:23, 193:19, 206:11, 206:14, 214:16, 222:12, 230:3, 268:1, 270:25, 291:11, 308:7 thickness [1] - 107:22 thin [1] - 155:4 thinking [3] - 182:10, 261:20, 283:16 thinks [5] - 88:5, 106:14, 247:19, 265:9, 275:1 Third [1] - 80:19 third [21] - 99:4, 100:13, 104:9, 104:12, 105:15, 120:22, 145:18, 145:25, 148:6, 148:9, 159:13, 188:16, 190:10, 190:19, 203:4, 206:9, 259:13, 266:20, 287:22, 295:7, 299:14 third-party [2] - 100:13, 159:13 thoroughly [2] - 219:21, 231:10 thousand [1] - 298:21 thousands [1] - 279:12 threaded [2] - 85:8, 238:3 threads [3] - 85:10, 85:13, 238:4 threat [3] - 129:9, 257:18, 299:12 threaten [1] - 212:17 threatening [1] - 224:13 threats [1] - 293:9 three [24] - 93:16, 98:9, 108:16, 127:4, 145:14, 177:12, 178:11, 198:16, 204:10, 204:13, 210:11, 257:10, 257:14, 273:12, 281:20, 287:7, 287:18, 288:14, 288:15, 288:16, 290:8, 290:25, 295:19, 295:22 Three [17] - 114:4, 114:7, 114:11, 187:4, 187:5, 187:13, 189:21, 190:7, 190:12, 190:15, 193:3, 196:8, 196:10, 198:21, 250:19, 276:1, 276:6 three-part [7] - 288:14, 288:15, 288:16, 290:8, 290:25, 295:19, 295:22 three-prong [2] - 287:7, 287:18 threshold [1] - 99:17 thresholds [1] - 285:4

throughout [3] - 89:12, 192:6, 237:7

throw [2] - 97:15, 165:23

throws [1] - 247:15

tie [4] - 206:2, 261:23, 266:18, 275:14 tied [2] - 212:15, 270:16 timeline [11] - 157:8, 158:24, 159:1, 185:21, 193:7, 199:20, 201:1, 204:6, 215:13, 215:14, 223:24 timelines [2] - 151:2, 151:5 timely [3] - 126:19, 214:10, 256:12 timing [3] - 134:2, 178:25, 282:12 tip [1] - 269:25 tipped [1] - 131:18 title [1] - 124:16 titled [1] - 314:5 today [42] - 81:3, 82:6, 82:19, 83:1, 84:20, 99:22, 126:5, 156:20, 165:20, 175:12, 177:24, 178:2, 181:7, 187:6, 202:6, 204:17, 205:10, 207:8, 207:12, 208:24, 209:6, 211:18, 214:1, 217:13, 219:7, 220:5, 220:17, 224:4, 224:17, 226:4, 227:24, 228:8, 228:22, 230:24, 233:5, 237:18, 263:16, 276:2, 281:2, 282:4, 283:14, 312:22 today's [1] - 282:12 **Todd** [2] - 80:13, 81:19 together [29] - 85:5, 86:2, 87:1, 87:7, 87:9, 88:23, 101:6, 101:25, 108:5, 137:9, 138:11, 161:11, 184:17, 225:17, 226:2, 235:21, 235:23, 235:24, 236:23, 236:24, 237:5, 238:2, 239:24, 240:24, 242:16, 266:19, 269:7, 269:20, 283:18 tolerate [1] - 304:2 tons 131 - 243:2 took [16] - 91:20, 99:16, 101:13, 102:16, 103:19, 104:11, 106:19, 136:25, 147:3, 157:23, 190:24, 226:12, 229:25, 246:17, 257:3, 282:6 tooling [1] - 98:24 tools [1] - 120:7 top [9] - 90:9, 93:17, 183:2, 183:5, 230:8, 230:9, 238:7, 238:9, 238:14 topic [7] - 150:18, 209:17, 212:2, 222:7, 222:8, 253:24, 280:23 topics [2] - 150:16, 209:5 tore [4] - 146:15, 146:20, 148:8, 226:11 torn [2] - 267:1, 267:5 total [2] - 194:14, 197:7 totality [1] - 98:2 touch [1] - 193:9 touches [1] - 236:22 touching [2] - 187:5, 193:6 towel [1] - 119:25 track [52] - 85:19, 85:21, 89:7, 89:15, 89:17, 89:20, 89:25, 90:8, 90:14, 107:13, 112:8, 112:13, 117:10, 117:13, 117:14, 117:15, 117:16, 117:19, 117:20, 154:15, 154:22, 189:9, 189:11, 189:15, 190:2, 190:16, 190:17, 191:19, 191:20, 192:24, 194:17, 194:19, 195:23, 198:1, 198:7, 198:10, 198:12, 198:14, 198:25,

199:1, 232:21, 236:15, 236:17, 236:22, 269:13, 269:17, 273:6, 275:3, 275:5, 276:24, 277:23, 278:19 Track[7] - 107:3, 107:9, 169:7, 169:12, 170:18, 244:4 tracks [3] - 131:14, 273:9, 277:25 Trade [1] - 80:14 Trademark [4] - 124:6, 124:19, 124:25, Trading [6] - 115:2, 115:3, 115:12, 115:13, 279:17, 279:20 transaction [4] - 287:1, 304:16, 304:24, 305:12 transaction's [1] - 284:23 transactions [6] - 104:17, 106:15, 284:25, 291:22, 292:6, 312:20 transcript [13] - 92:6, 100:23, 101:11, 106:5, 108:17, 110:11, 120:11, 195:4, 241:24, 246:24, 248:17, 314:4, 314:6 TRANSCRIPT[1] - 79:17 transcripts [1] - 248:8 translation [2] - 159:5, 200:6 treated [1] - 307:15 trials [2] - 252:6, 282:17 triangulating [1] - 264:12 tricky [1] - 261:13 tried [5] - 157:6, 187:6, 190:19, 196:10, 282:7 trier [3] - 99:19, 145:10, 148:14 tries [5] - 87:18, 145:15, 146:14, 251:12, 256:16 trigger [4] - 171:17, 171:19, 172:1, 175:6 trigonometry [1] - 264:17 triviality [1] - 281:11 true [19] - 104:9, 108:4, 112:14, 114:6, 119:22, 122:5, 123:24, 124:4, 129:11, 146:4, 153:5, 225:10, 245:13, 245:14, 247:18, 255:19, 266:13, 272:12, 286:8 trustworthy [1] - 266:10 try [12] - 139:7, 151:16, 163:23, 165:13, 193:20, 195:22, 196:2, 215:18, 232:14, 232:20, 246:8, 257:11 trying [8] - 173:15, 216:15, 231:24, 236:8, 244:16, 247:14, 263:21, 291:23 tube [6] - 153:16, 169:13, 169:14, 169:15, 182:5 tubular [4] - 141:18, 142:4, 142:13, 153:6 tuck [1] - 229:3 tucked [2] - 228:20, 229:7 Tuesday [1] - 283:1 TurboCare [3] - 187:1, 196:24, 275:20 turn [20] - 84:9, 85:25, 86:3, 86:4, 139:9, 150:7, 178:12, 184:13, 207:1, 214:24, 221:3, 227:22, 229:24, 230:7, 244:16, 249:16, 257:9, 259:5, 263:21, 281:20 turned [3] - 201:8, 203:8, 306:3 turning [12] - 83:21, 85:3, 116:21, 152:12, 199:18, 251:6, 253:17,

256:20, 257:8, 270:10, 271:24, 279:23 turns [4] - 96:18, 181:9, 263:8, 263:9 turret [9] - 82:24, 86:1, 145:25, 148:6, 148:9, 234:17, 266:20, 281:18, 282:5 two [68] - 83:19, 84:2, 84:8, 87:8, 95:21, 96:2, 102:10, 103:7, 105:9, 105:20, 107:1, 111:25, 115:2, 121:17, 131:16, 133:15, 137:24, 137:25, 145:18, 148:18, 152:6, 152:22, 157:5, 157:15, 159:24, 169:23, 175:13, 180:2, 180:21, 181:1, 181:3, 181:23, 182:9, 183:1, 184:12, 185:22, 188:3, 189:10, 195:2, 198:8, 201:6, 204:12, 210:6, 211:21, 216:16, 225:20, 227:24, 235:17, 235:20, 235:22, 235:23, 235:24, 236:23, 248:20, 252:7, 255:21, 258:18, 264:1, 264:21, 268:13, 269:20, 270:7, 281:8, 286:1, 291:20, 305:4, 305:6 two-part [1] - 235:17 twofold [1] - 99:22 type [8] - 117:20, 159:12, 171:7, 173:12, 183:12, 196:11, 231:17, 245:1 types [3] - 176:18, 221:23, 304:3 typical [1] - 294:22

U

U.S [25] - 145:2, 148:11, 148:12, 149:16, 149:18, 157:25, 223:23, 224:22, 224:23, 224:24, 284:12, 285:22, 286:16, 286:25, 287:10, 287:11, 287:12, 287:13, 289:8, 289:23, 291:9, 294:1, 294:17, 298:20, 302:6 ultimate [6] - 97:17, 251:8, 262:10, 299:21, 300:8, 301:1 ultimately [17] - 88:3, 96:22, 106:9, 124:7, 127:19, 128:1, 128:5, 200:3, 211:8, 217:7, 249:5, 254:22, 262:7, 264:8, 300:14, 301:7, 301:16 unable [1] - 192:20 unambiguous [1] - 111:2 unavailing [1] - 165:20 unbeknownst [1] - 203:16 unchanged [2] - 102:20, 280:17 unclaimed [9] - 112:25, 113:25, 114:17, 198:22, 249:18, 249:19, 251:5, 273:1, 277:22 under [47] - 97:8, 97:10, 100:7, 101:7, 107:3, 109:18, 113:11, 125:22, 126:16, 128:21, 132:10, 140:8, 156:11, 157:25, 168:15, 168:16, 168:20, 171:19, 177:16, 188:19, 215:16, 218:13, 226:8, 236:1, 241:8, 241:17, 242:23, 257:6, 259:8, 259:14, 262:16, 262:25, 270:1, 272:14, 275:20, 276:11, 280:9, 280:19, 284:10, 284:23, 285:4, 285:7, 285:20, 287:18, 288:5, 294:16, 303:18 undergo [1] - 169:24

312:6 undermine [1] - 247:20 undermines [1] - 106:18 underneath [1] - 188:8 understood [6] - 117:4, 192:6, 194:24, 195:13, 209:16, 253:14 undertaken [1] - 284:25 undeveloped [3] - 268:17, 268:18, undisputed [4] - 84:17, 91:9, 188:11, 280:15 unequivocal [1] - 171:21 unexplained [1] - 205:23 unfair [3] - 214:14, 285:16, 285:21 unique [1] - 171:23 unit [3] - 182:5, 298:12, 301:14 **UNITED** [2] - 79:1, 79:19 United [10] - 80:18, 145:1, 145:12, 146:11, 146:22, 149:21, 150:1, 267:9, 286:21, 301:16 units [3] - 171:5, 293:14, 296:9 **University** [1] - 80:3 unjust [3] - 212:11, 213:18, 213:20 unknown [3] - 145:17, 180:7, 267:5 unless [3] - 124:23, 184:14, 307:8 unlike [3] - 122:14, 173:18 unnecessary [1] - 272:6 unpredictability [1] - 116:19 unpublished [1] - 288:18 unrelated [2] - 179:23, 209:19 unsupported [1] - 167:7 untimely [2] - 245:10, 256:11 unusual [1] - 120:24 **up** [99] - 83:7, 85:11, 87:6, 87:14, 87:24, 90:6, 92:8, 97:23, 101:17, 102:18, 102:24, 104:3, 105:9, 108:7, 108:19, 109:6, 111:18, 117:5, 119:9, 121:22, 122:4, 124:8, 124:21, 128:4, 130:22, 131:25, 133:10, 134:25, 137:13, 137:25, 138:5, 141:24, 145:21, 151:24, 152:12, 153:17, 155:5, 159:18, 171:9, 173:13, 174:25, 182:13, 184:8, 184:11, 202:16, 202:20, 203:18, 205:8, 205:25, 210:21, 211:10, 212:5, 213:8, 213:10, 214:6, 215:5, 216:11, 219:1, 219:2, 224:1, 225:20, 225:23, 227:8, 230:12, 232:15, 233:5, 233:12, 235:20, 237:10, 238:24, 239:22, 241:14, 243:22, 245:5, 247:17, 252:18, 253:6, 258:15, 260:20, 262:14, 272:11, 272:14, 274:12, 276:2, 278:14, 278:21, 281:5, 281:22, 282:16, 282:17, 282:18, 282:21, 283:21, 283:25, 284:2, 304:16, 311:3, 312:23 USA [2] - 79:6, 79:8 **USC** [3] - 284:10, 293:12, 293:16 useful [5] - 172:15, 181:22, 182:1, 210:13, 267:20

underlying [4] - 196:5, 249:14, 312:3,

user [7] - 115:5, 115:6, 115:11, 115:14, 115:20, 116:1, 279:20 uses [4] - 141:4, 264:9, 305:8

USPTO[1] - 123:11 utility [1] - 96:13

V

vaguely [1] - 140:20

valid [11] - 121:14, 122:6, 125:5, 125:12, 132:9, 132:22, 164:2, 199:9, 217:21, 255:24, 259:21

validity [11] - 125:10, 163:11, 163:24, 163:25, 164:17, 164:24, 219:16, 223:8, 268:1, 270:25, 271:1

value [5] - 177:22, 181:2, 182:22, 183:14, 225:23

Van [1] - 166:18

variation [1] - 144:6

variety [5] - 104:22, 123:14, 141:6, 146:1, 279:12

various [12] - 86:16, 153:17, 169:9, 220:11, 221:19, 221:24, 225:24, 241:20, 245:2, 249:1, 271:9, 298:8

Varmint [1] - 268:14

vary [1] - 273:21

vast [4] - 113:16, 284:21, 291:22, 308:7

VCR [2] - 147:12 veracity[1] - 109:16 versed [1] - 171:22

version [5] - 103:13, 142:14, 157:10, 200:15. 278:25

versus [4] - 81:6, 127:1, 192:19, 241:12

Veteran [1] - 286:16 vetted [1] - 243:14

via [6] - 130:7, 255:22, 264:14, 265:4, 300:14, 300:17

viable [1] - 241:21

vibration [2] - 241:13, 243:25

vibrations [2] - 170:2, 175:4

video [2] - 246:5, 246:11

view [12] - 96:23, 134:1, 135:3, 152:20, 154:24, 186:23, 193:1, 206:1, 229:6,

230:8, 271:10, 310:18 viewing [1] - 274:6

viewpoint [1] - 252:9

violating [1] - 167:3

Virginia [1] - 288:19

virtually [2] - 298:9, 298:13

virtue [1] - 287:7

vision [2] - 264:9, 264:14

visual [1] - 198:16

vocabulary [1] - 152:1

void [1] - 186:16

volume [1] - 202:24

volumes [1] - 212:20

voluntarily [1] - 85:1

vs [1] - 79:5

W

WA [1] - 80:4

wait [7] - 158:13, 211:9, 212:20, 213:22, 261:5, 272:8, 272:13

waited [4] - 201:6, 205:6, 213:19, 217:22

waiting [6] - 128:3, 205:15, 205:17, 208:15, 210:25, 211:3

waivers [1] - 286:13

walk [1] - 161:13

walked [2] - 178:21, 228:14

Walker [2] - 80:18, 314:11

WALKER [1] - 314:12

walking [2] - 187:14, 283:21

walks [1] - 147:10

wall [2] - 169:12, 236:22

wallboard [2] - 244:8, 244:9

wants [5] - 93:25, 172:19, 238:23,

241:5. 296:12

war [1] - 294:1

warned [3] - 201:22, 260:21, 265:24

warning [2] - 259:23, 260:1

washer [18] - 114:5, 114:7, 114:11, 187:19, 187:22, 187:24, 188:7, 188:14, 188:15, 188:17, 188:19, 188:20, 193:2, 196:12, 196:14,

196:19, 250:21

washers [2] - 188:15, 190:9

watching [1] - 98:8

water [1] - 187:23

ways [7] - 162:15, 196:21, 216:16,

257:11, 279:12, 298:2, 310:8

weapon [1] - 174:1

weapons [1] - 173:22

wear [1] - 172:16

weather [1] - 244:19

weathering [1] - 171:25

website [3] - 221:22, 311:6, 311:10

Wednesday [1] - 283:2

week [1] - 274:18

weighing [1] - 135:22

weight [2] - 275:25, 276:12

weird [1] - 307:9

welcome [1] - 81:24

well-established [1] - 216:8

whatsoever [2] - 119:19, 122:18

wheel [9] - 242:10, 242:13, 242:18,

242:19, 242:20, 242:21, 243:1, 243:3

whole [10] - 81:17, 98:4, 167:17,

230:23, 240:1, 258:15, 283:8, 283:9,

294:12, 297:14

WI [1] - 80:12

wider [1] - 86:9

Williams [2] - 80:5, 81:14

WILLIAMS [1] - 81:14

win [9] - 131:21, 132:1, 132:5, 135:1, 144:16, 245:13, 253:4, 253:20, 263:7

Windauer [6] - 172:11, 172:12, 209:12,

209:14, 261:20, 281:20

window [5] - 205:9, 206:11, 212:15,

221:22, 272:13

wins [1] - 259:15

withdrawn [1] - 268:1

withstand [5] - 170:21, 173:21, 174:1,

174:5, 244:5

witness [7] - 104:2, 118:23, 136:25, 180:4, 192:10, 225:7, 252:5

witnesses [1] - 184:11

witnesses' [1] - 219:2

word [11] - 87:21, 88:2, 89:11, 89:12, 89:14, 92:11, 112:17, 191:3, 235:12, 235:19, 247:15

words [23] - 87:9, 87:12, 90:1, 100:6, 105:4, 117:19, 119:14, 120:7, 126:24, 132:21, 141:14, 144:5, 156:14, 169:14, 171:19, 172:1, 175:6, 189:17,

249:25, 251:8, 264:9, 264:13, 278:24

workings [1] - 105:1

works [16] - 86:23, 98:10, 107:8,

119:15, 184:7, 215:13, 242:15,

242:21, 242:23, 243:9, 244:18,

244:20, 264:19, 283:5, 301:21 world [7] - 169:22, 206:23, 208:22,

212:19, 241:12, 241:13, 243:24

World [1] - 80:14

Worlds [9] - 121:19, 122:7, 122:9, 122:15, 122:22, 256:5, 261:3

worldwide [1] - 225:20

worry [1] - 301:2

worth [4] - 266:9, 266:11, 281:11,

281:12

worthless [1] - 196:9

wrestle [1] - 309:21

write [1] - 178:17

writes [2] - 128:4, 250:6

written [17] - 113:4, 115:19, 116:7, 118:24, 162:25, 184:8, 187:2, 188:4,

188:25, 189:8, 197:19, 197:21, 198:7, 249:23, 250:18, 280:5, 291:24

wrongly [1] - 298:1

wrote [6] - 127:14, 183:17, 188:7, 190:1, 197:1, 260:11

Υ

year [18] - 102:19, 102:23, 111:18, 145:2, 157:11, 185:10, 185:11, 199:11, 202:8, 202:10, 205:9, 212:15, 218:12, 258:1, 258:3, 272:13, 272:14,

280:18 years [25] - 102:10, 121:1, 123:6, 126:8, 127:14, 131:9, 134:11, 136:7, 200:16, 201:6, 201:24, 202:10, 202:13, 202:25, 203:1, 203:4, 211:4, 211:9, 225:23, 258:5, 260:1, 272:7, 272:9,

272:14, 279:12

Ζ

ZeeroStop [1] - 297:18 **zero** [1] - 162:7

ZeroLock [2] - 281:21, 305:1

ZeroStop [3] - 304:19, 304:21, 304:25